

MANUFACTURERS RECORD

A Weekly Newspaper Devoted to the Industrial, Financial, Railroad,
Mining, Contracting, Engineering, Building, and General
Business Interests of the South and Southwest

Vol. 60
No. 6

ESTABLISHED 1882

\$4.00 Per Year
Single Copy 15 Cents

INCREASE IN SOUTHERN FACTORY PRODUCTION

STATES	Value 1900	Value 1909	Increase Per Cent.
Alabama	\$72,110,000	\$146,431,000	103.0
Arkansas	39,888,000	74,818,000	87.6
Dist. of Col. . .	16,426,000	* 28,000,000	70.4
Florida	34,184,000	72,724,000	112.7
Georgia	94,532,000	202,641,000	114.3
Kentucky	126,509,000	223,754,000	76.8
Louisiana	111,398,000	223,928,000	101.0
Maryland	211,076,000	317,570,000	50.4
Mississippi . . .	33,719,000	80,555,000	138.6
North Carolina .	85,274,000	216,614,000	155.3
South Carolina .	53,336,000	113,236,000	112.3
Tennessee . . .	92,749,000	180,130,000	94.2
Texas	92,894,000	272,896,000	193.8
Virginia	108,644,000	219,794,000	102.3
West Virginia . .	67,007,000	161,960,000	141.7
Total	\$1,239,746,000	\$2,535,051,000	104.5
Missouri	\$316,304,000	\$572,085,000	80.9
Oklahoma	\$8,134,000	\$53,682,000	559.9
United States . .	\$11,406,927,000	* \$20,728,098,000	81.7

* Partly Estimated.

Alphabetical Index, Page 118.

Classified Index, Pages 112 to 117.

Classified Opportunities, Pages 80, 81 and 82.

BALTIMORE, AUGUST 17, 1911

B. t. u. THE MEASURE OF HEAT

The term British thermal unit (abbreviated B. t. u.), often confronts the user of coal. As a yard stick is a measure of length, a B. t. u. is a measure of heat. The total amount of heat contained in a pound of fuel, all of which is liberated by complete combustion, is expressed in B. t. u.'s. A single heat unit is the amount of heat required to raise the temperature of one pound of water one degree Fahrenheit at atmospheric temperature. Heat units make steam and steam makes power.

Below are tabulated, from some of the highest scientific authorities, the heat values of the commoner combustibles contained in coal:

SUBSTANCE	B. t. u. Per Lb.	
Acetylene Gas	21,465	Included in the "Volatile Matter" of proximate analysis.
Marsh Gas	23,515	
Olefiant Gas	21,345	
Hydrogen Gas	62,035	
Carbon	14,450	"Fixed Carbon" of proximate analysis.

CLINCHFIELD COAL IS HIGH IN HEAT VALUE

Clinchfield coal is rich in Hydrogen and the Hydro-Carbon gases shown above. These "VOLATILE" gases burn above the fuel bed with rapidity and great intensity in close proximity to the boiler surfaces. Quick liberation of heat units means quick generation of steam; hence the economy in using Clinchfield coal which maintains boilers at high capacity easily and continuously, thus delivering more than the rated horsepower. Clinchfield coal ranges from 14,000 to 14,700 heat units per pound, because it contains small percentages of oxygen, moisture and ash, which are valueless, and large percentages of the combustibles highest in heat value.

OUTPUT OF MINES OF CLINCHFIELD COAL CORPORATION 2,000,000 Tons Per Annum, and Growing CLINCHFIELD FUEL COMPANY

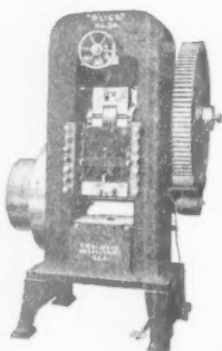
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Southern Terminal C., C. & O. Ry.

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Send for Metal sample plate. **Erdle Perforating Co., Rochester, N. Y.**



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400-ton pressure.

For Heavy Embossing Work



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This is fact; each one of these four points have been proved.

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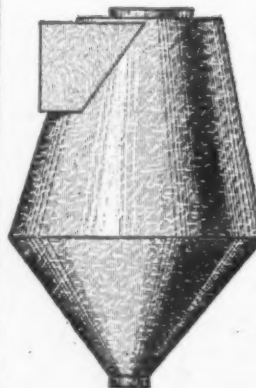
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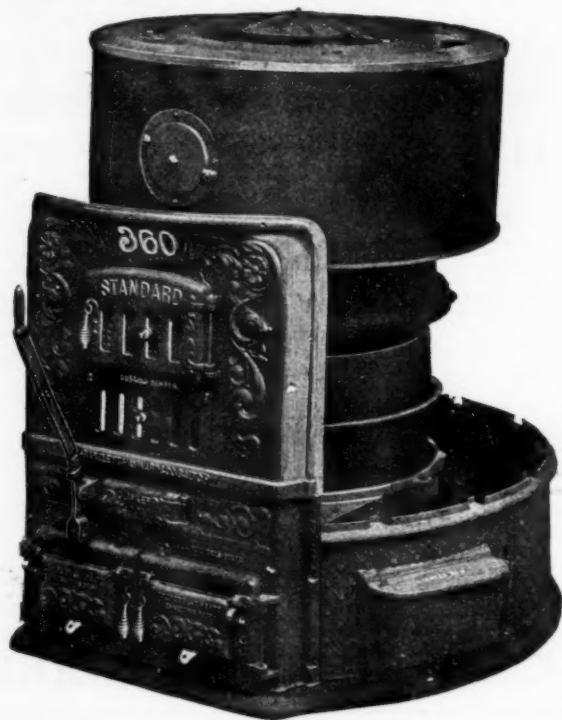
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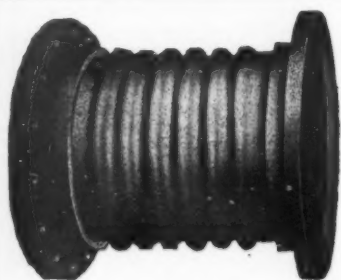
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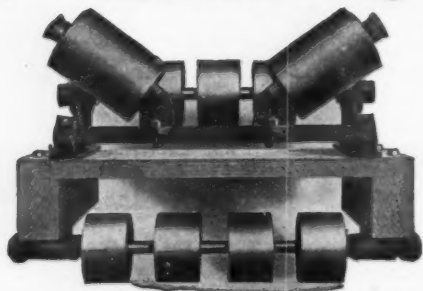
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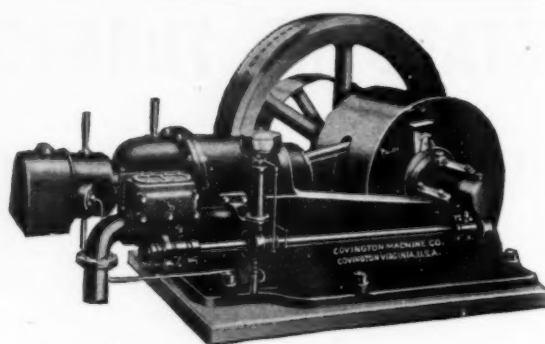


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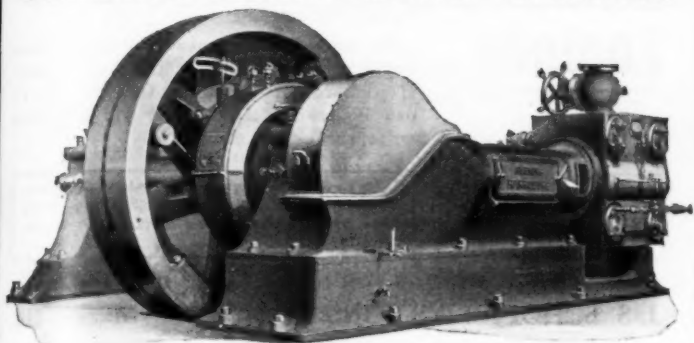
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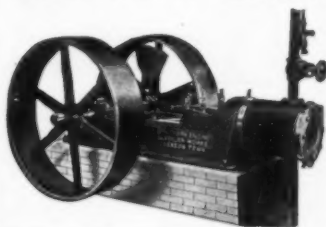
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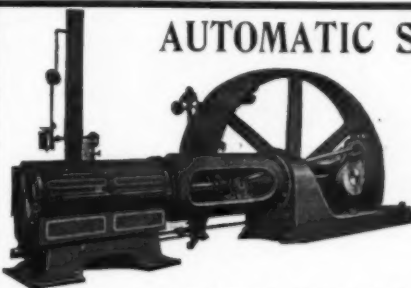
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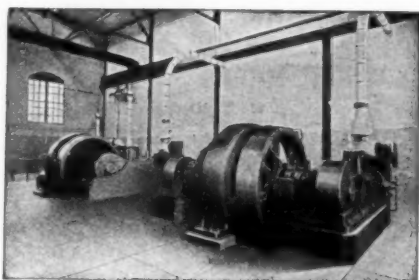
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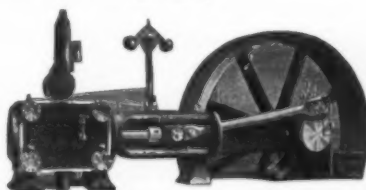
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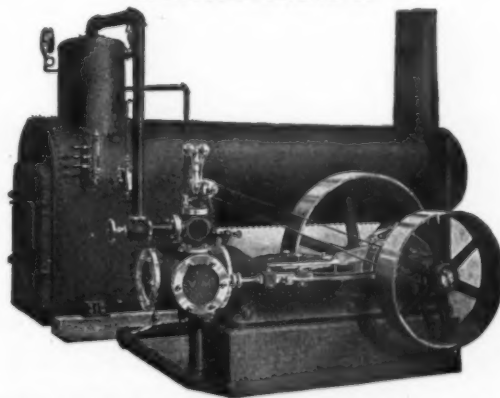
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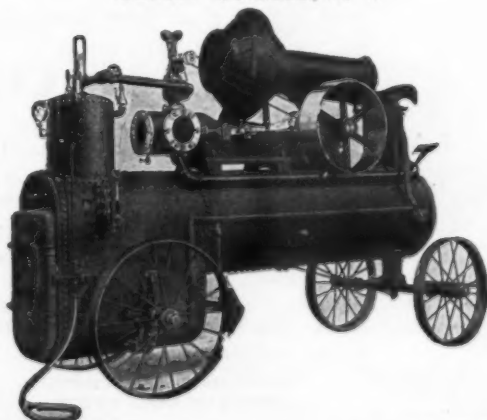
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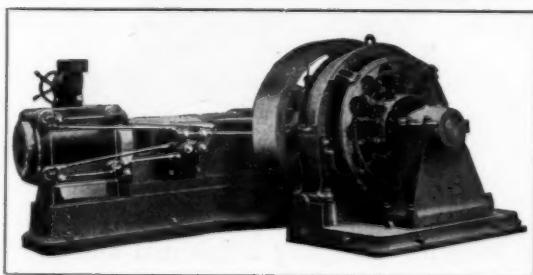
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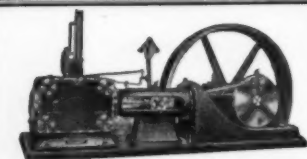
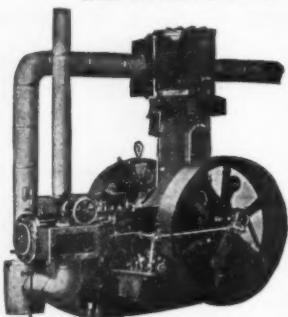
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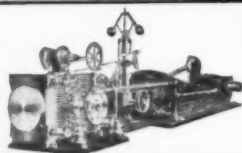


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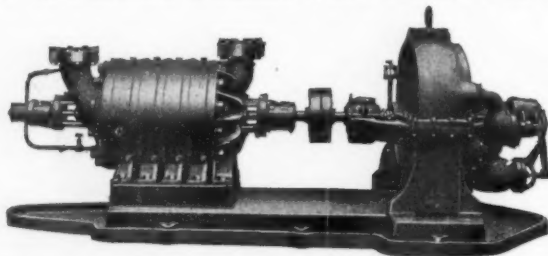
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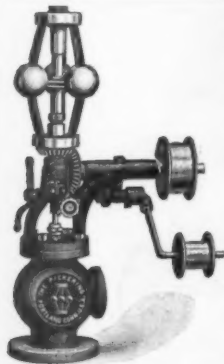
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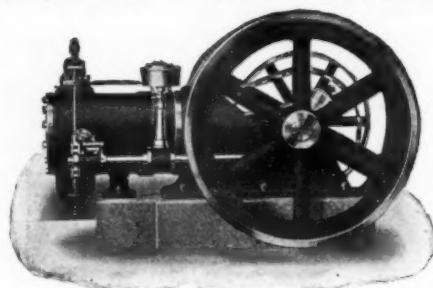
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No valves of any description.
No reciprocating or rubbing parts.

This explains why the Westinghouse-Leblanc Condenser bears
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It is in fact a turbine-type condenser, and occupies only a
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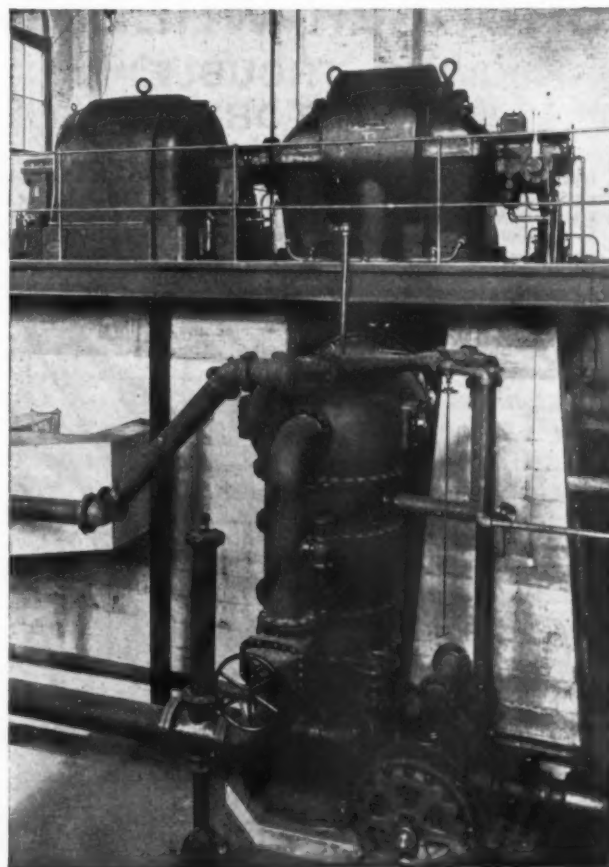
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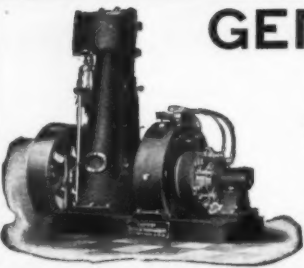
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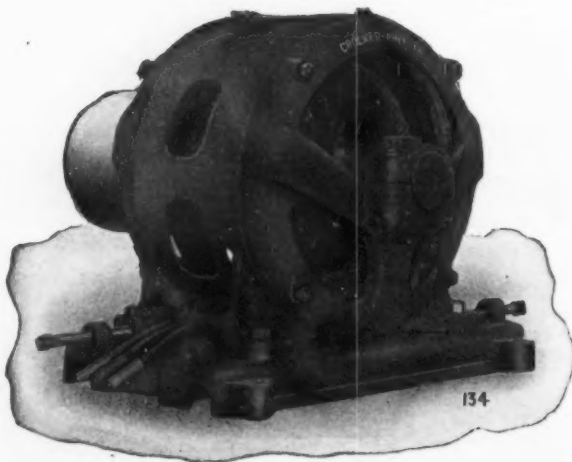
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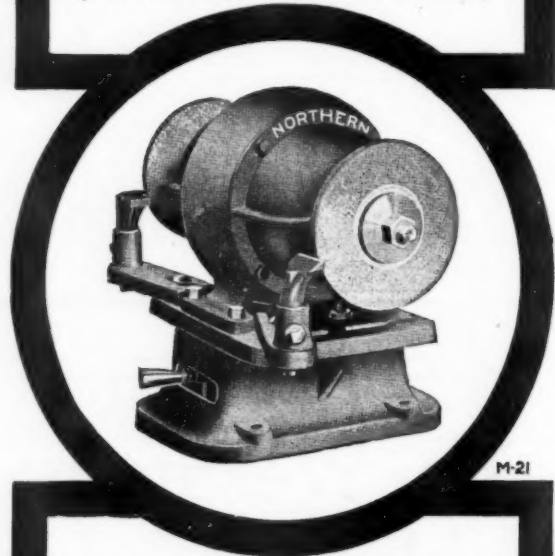
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Abolish all obstructing overhead belting. Stop the great losses of power incurred by the use of shafting. Throw out the hundred and one disadvantages attendant upon the old methods of Grinding and Buffing. In short install

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THE ELECTRIC STORAGE BATTERY CO.

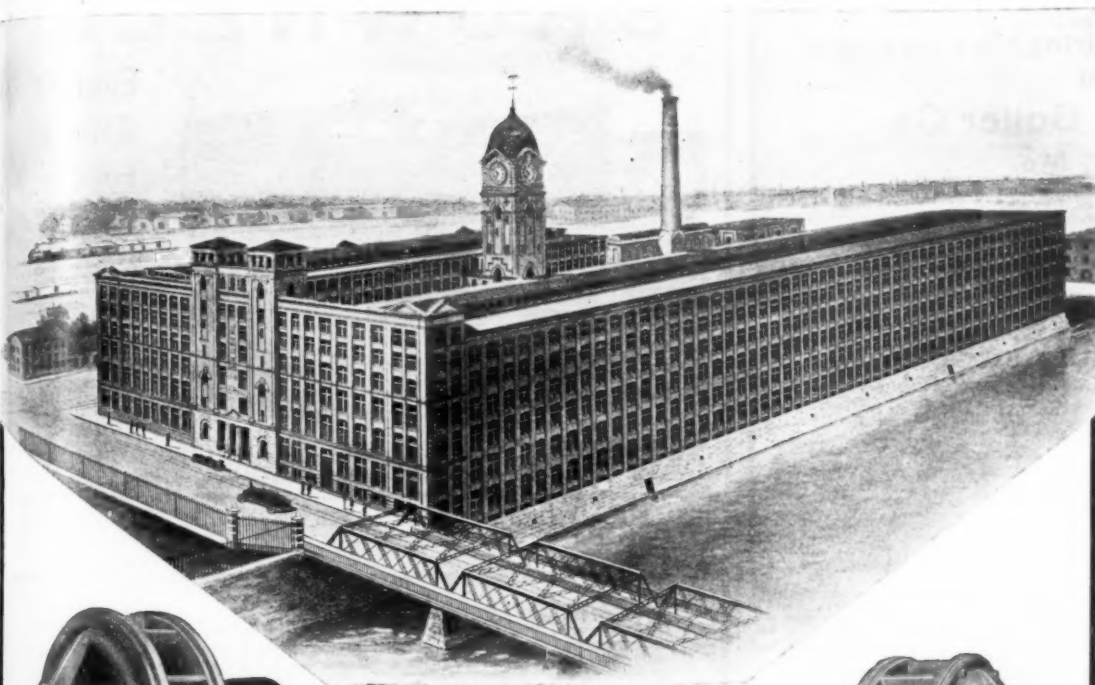
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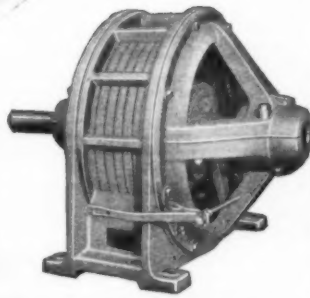
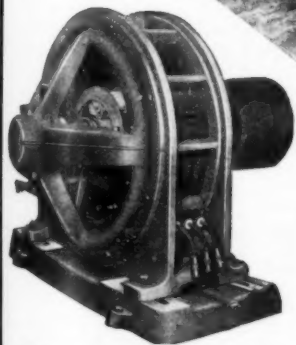
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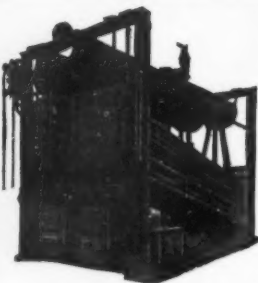
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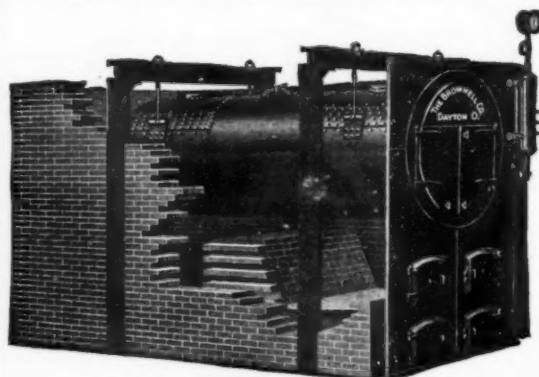
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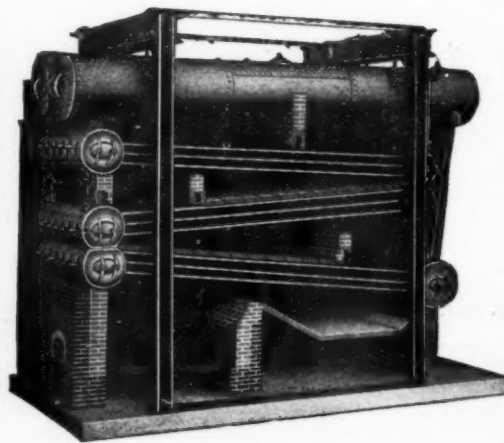
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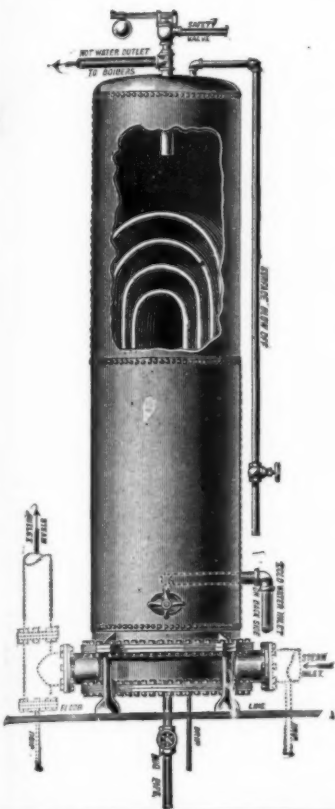
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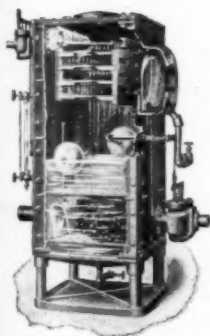
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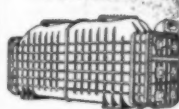
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Yours very truly,

Madison Electric Power Co.

By J. W. Reeve, Jr., Mgr.



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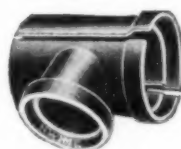


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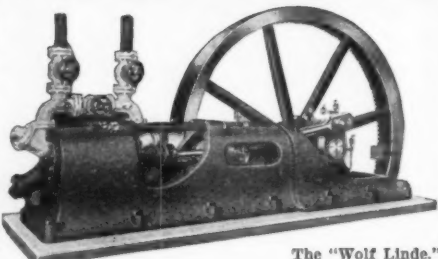
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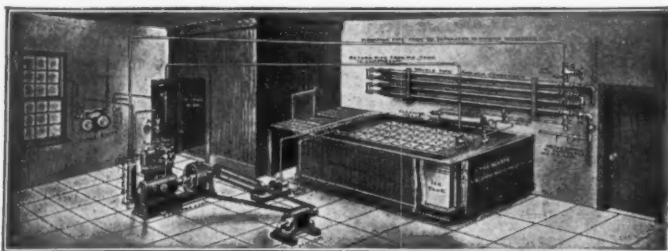
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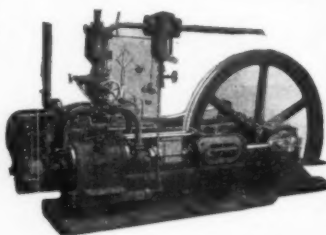
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This system can be easily and quickly installed when your plant is shut down for repairs.

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Its operation is regular, simple and gives absolute control of the Ammonia System.

The Check Valve (the application of which is being patented) is the principal feature. It prevents backslashing and allows the ammonia to complete its work in the tank.

Cost is less than that of Dry Gas System, and better results are produced.

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Do you contemplate going into the ice or refrigerating business in any of its various forms?

Do you know that it is a recognized fact among competent and disinterested refrigerating engineers that neither the compression nor absorption system is superior to the other for all purposes and under all conditions, but that each possesses distinct and substantial advantages over the other for some purposes and under some conditions?

Is it not wise, therefore, before buying, to consult with the company which manufactures complete lines under both systems?

In the first place, such a company should, from its varied and extensive experience, be fully competent to advise you.

In the second place, such a company has absolutely no interest in conflict with yours in giving advice.

Two cogent reasons, are they not?

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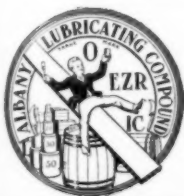
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Will you buy some "just-as-good" lubricant, because some theory seems to prove that it *ought* to be a good friction reducer?

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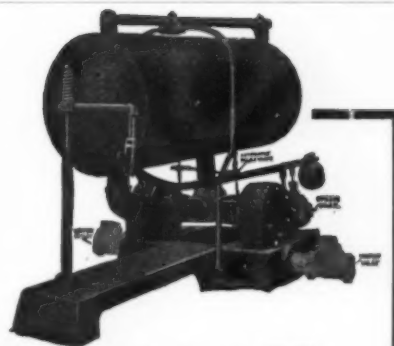
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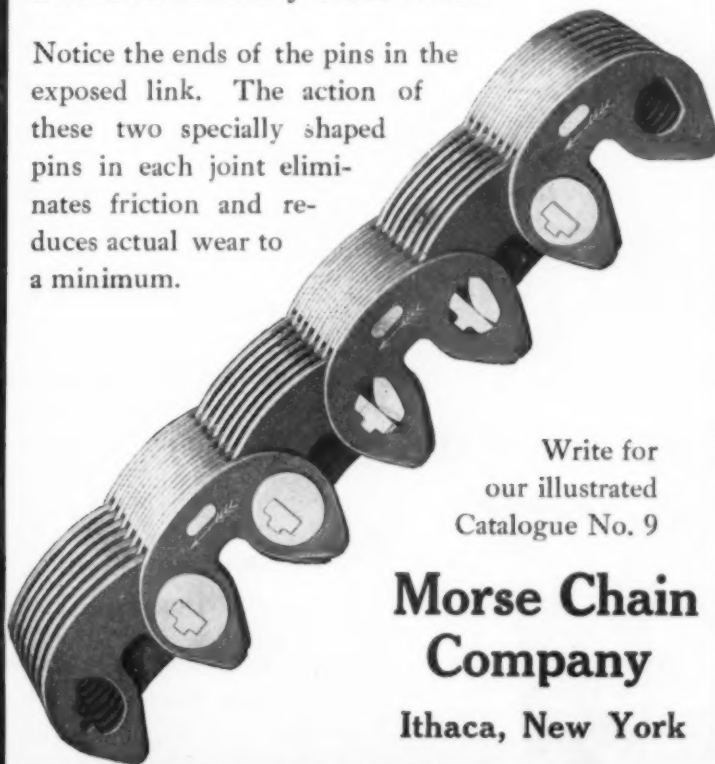
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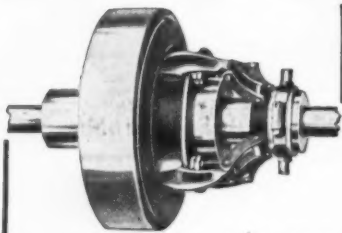
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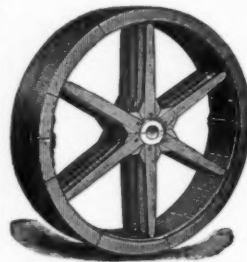
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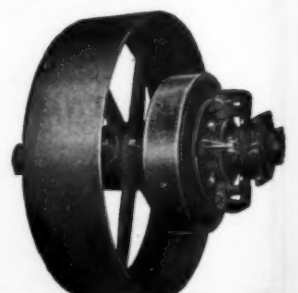
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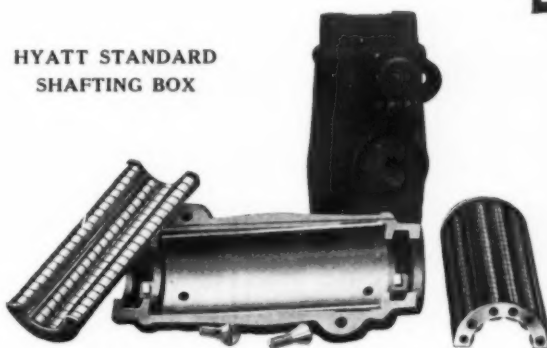
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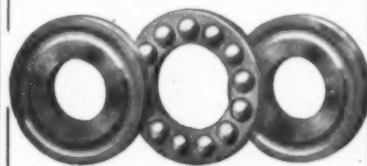
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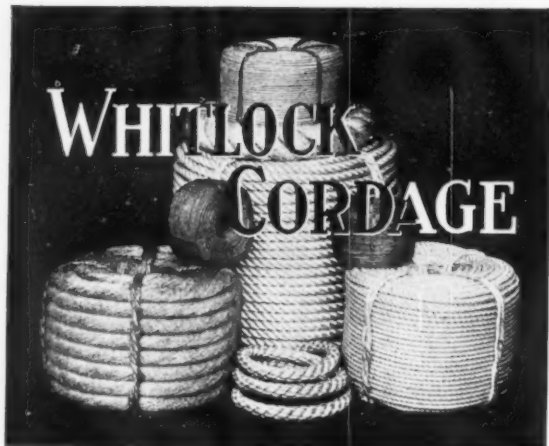
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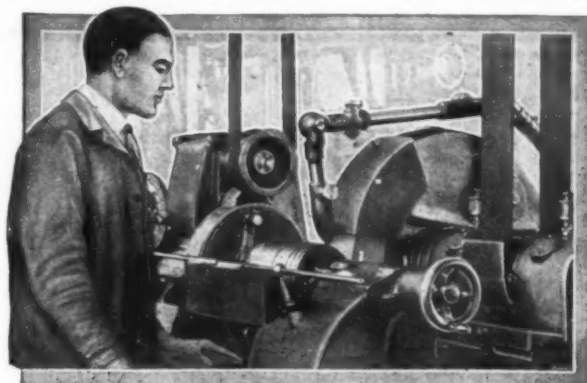
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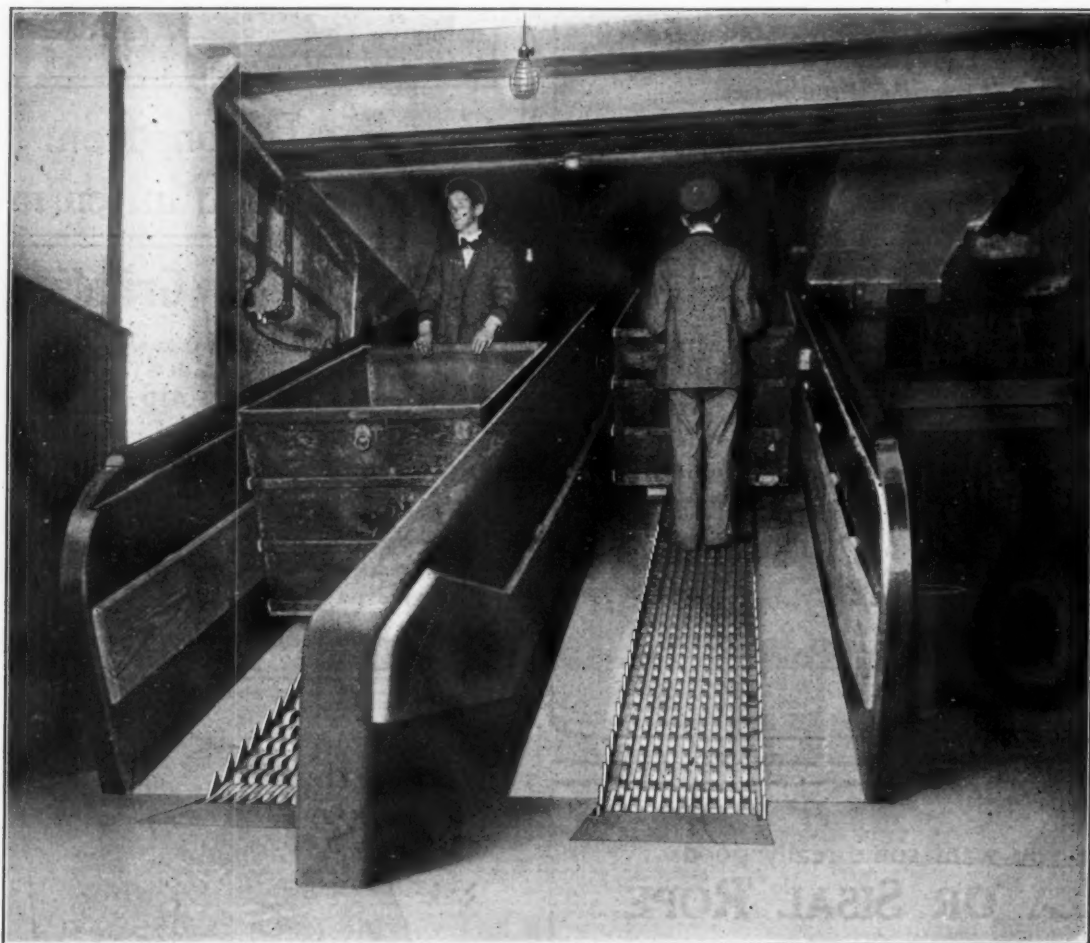
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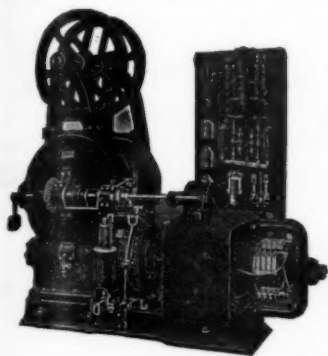
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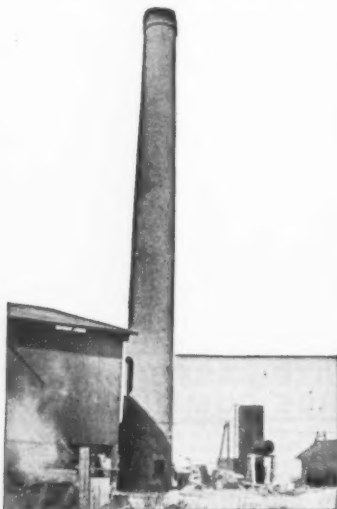
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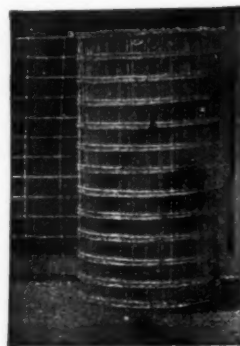
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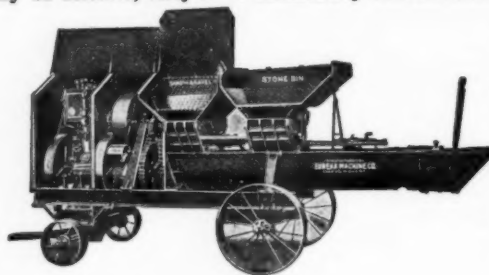
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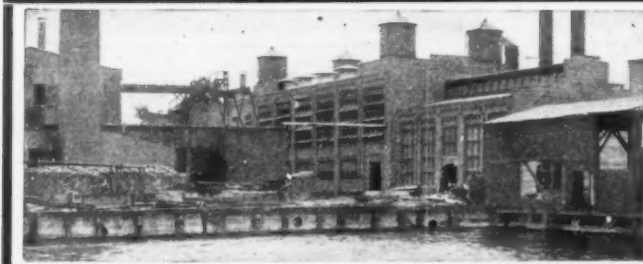
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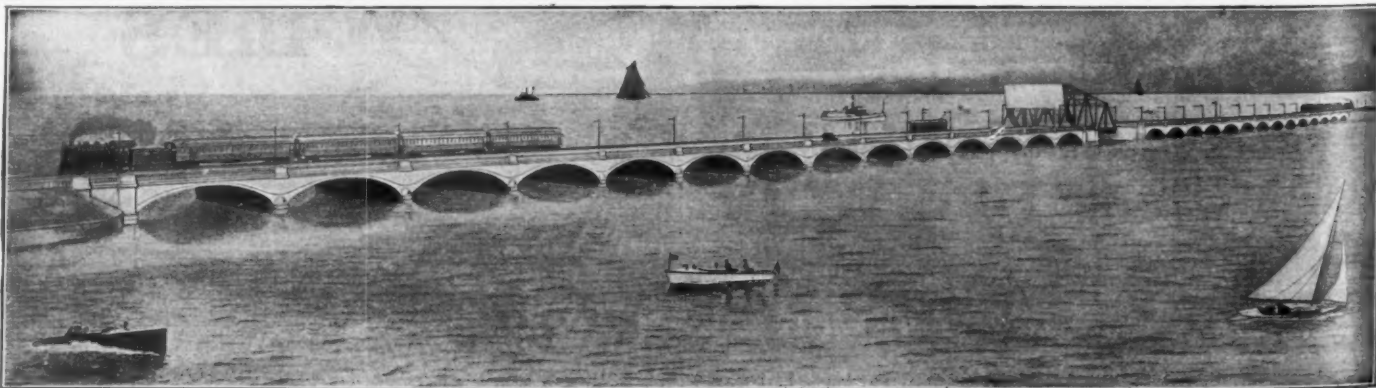
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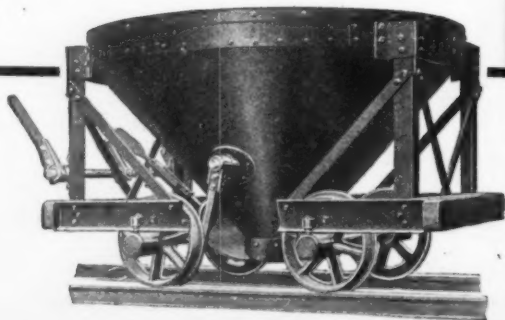
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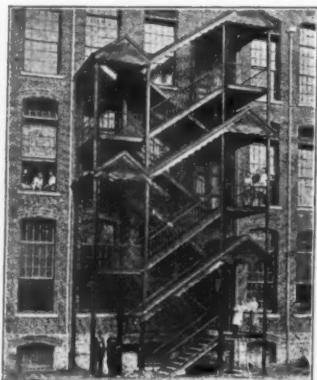
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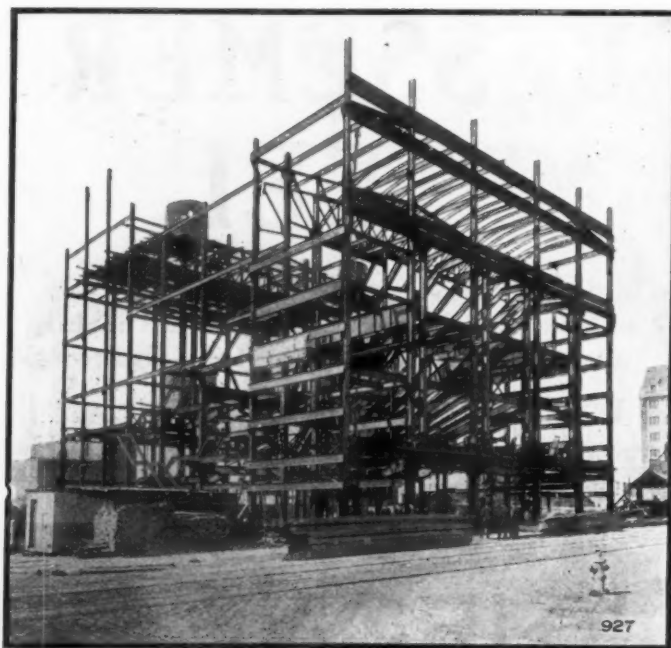
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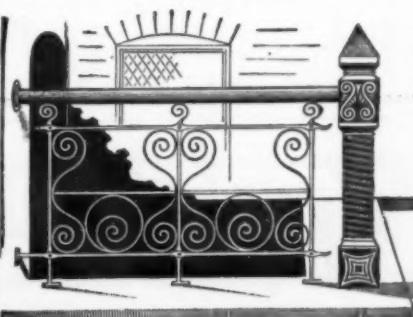
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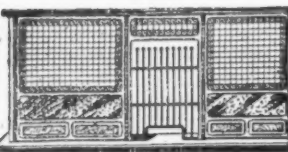
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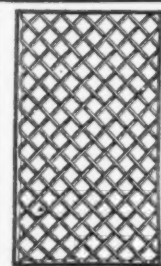
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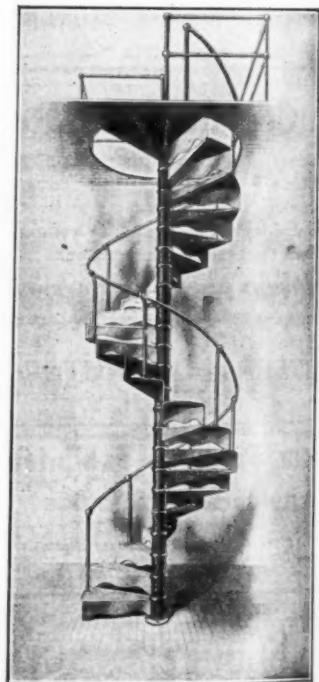
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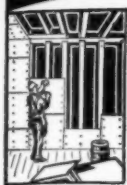
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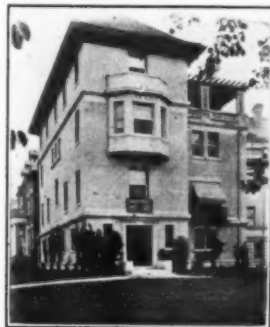
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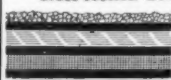
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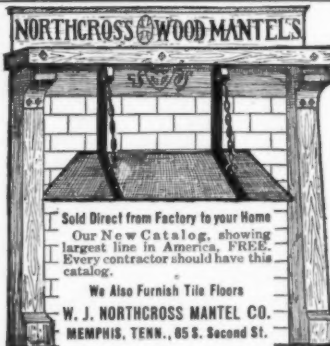
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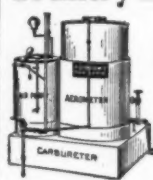
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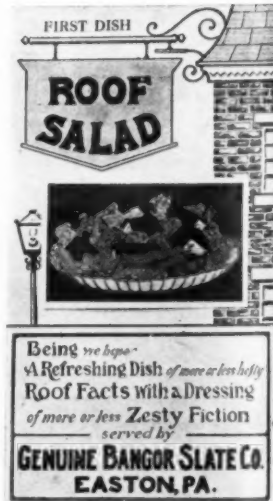
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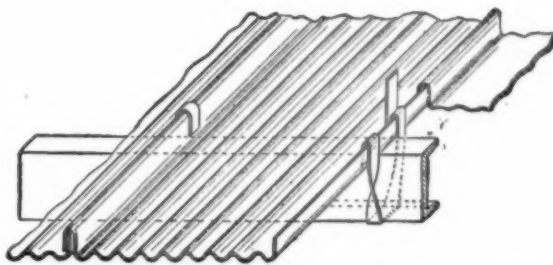
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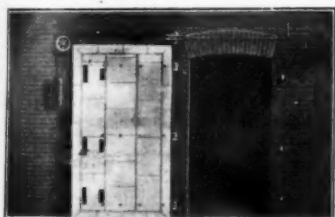
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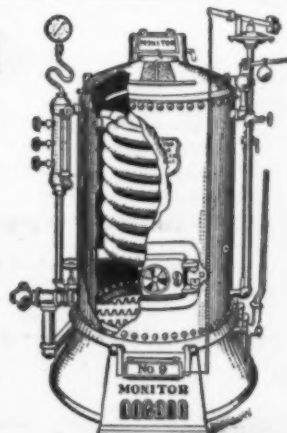
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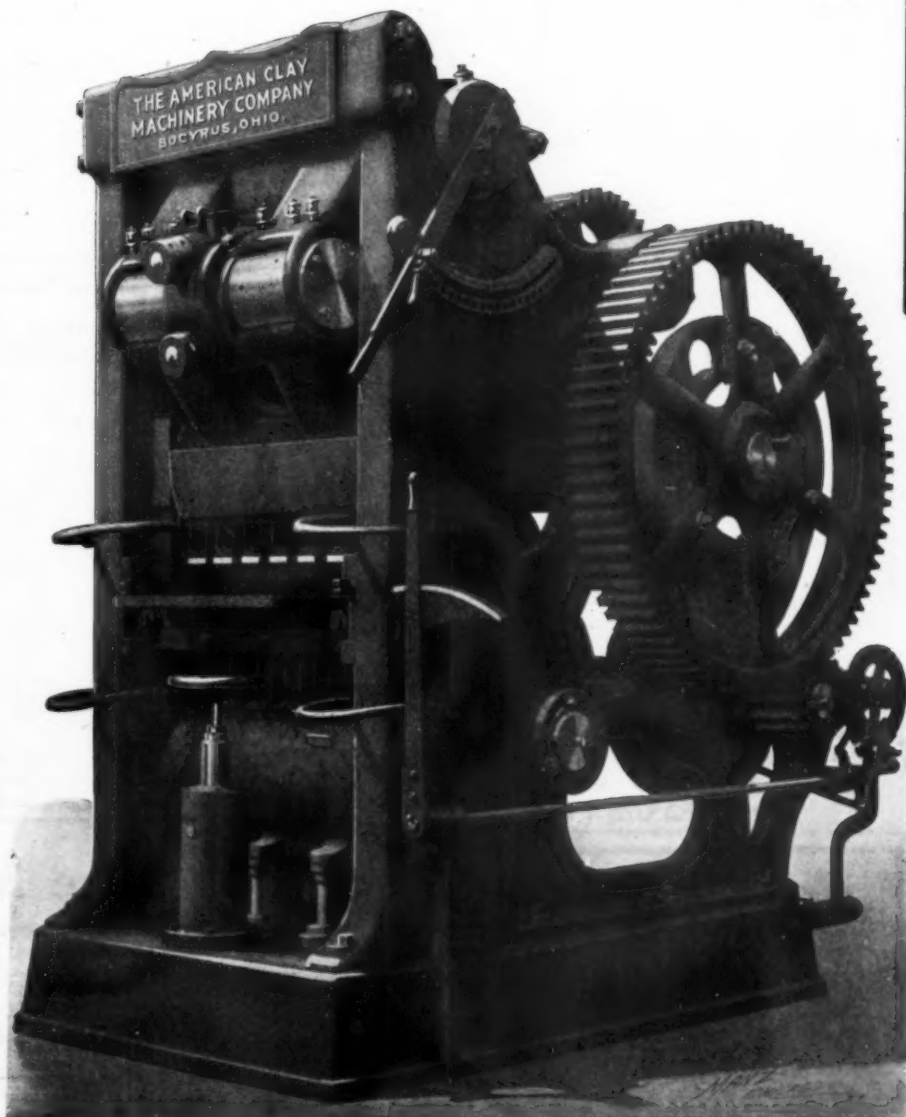
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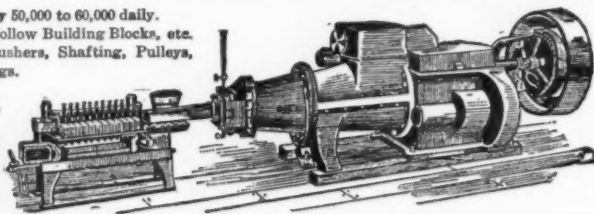
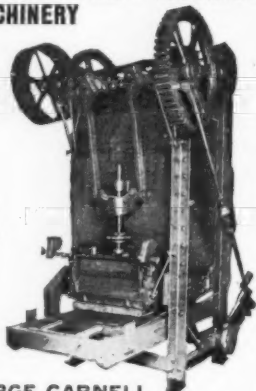
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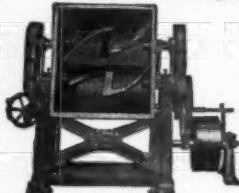
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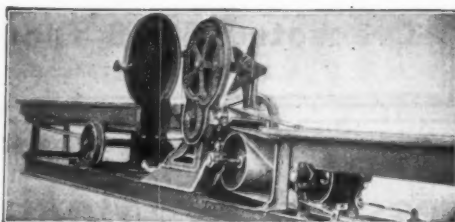
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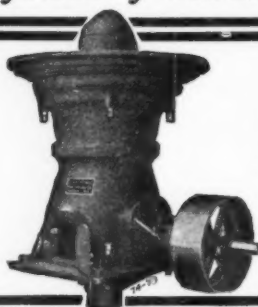
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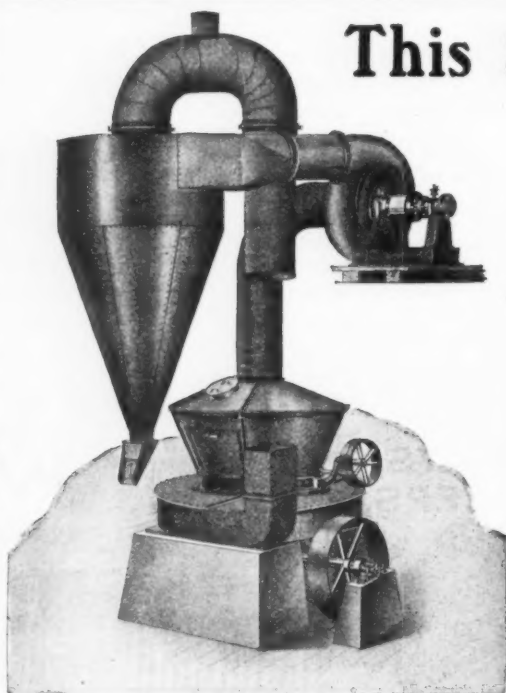
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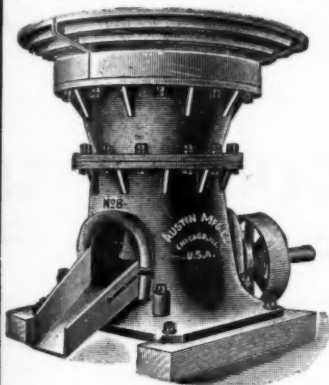
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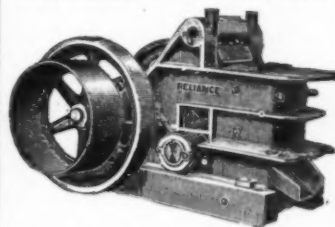
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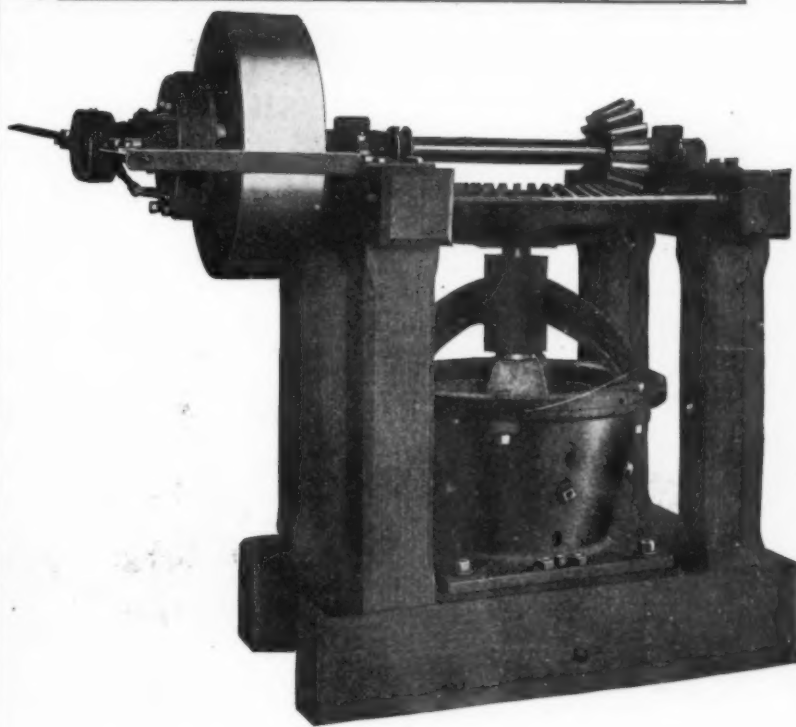
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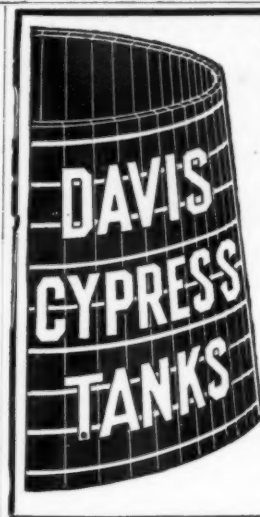
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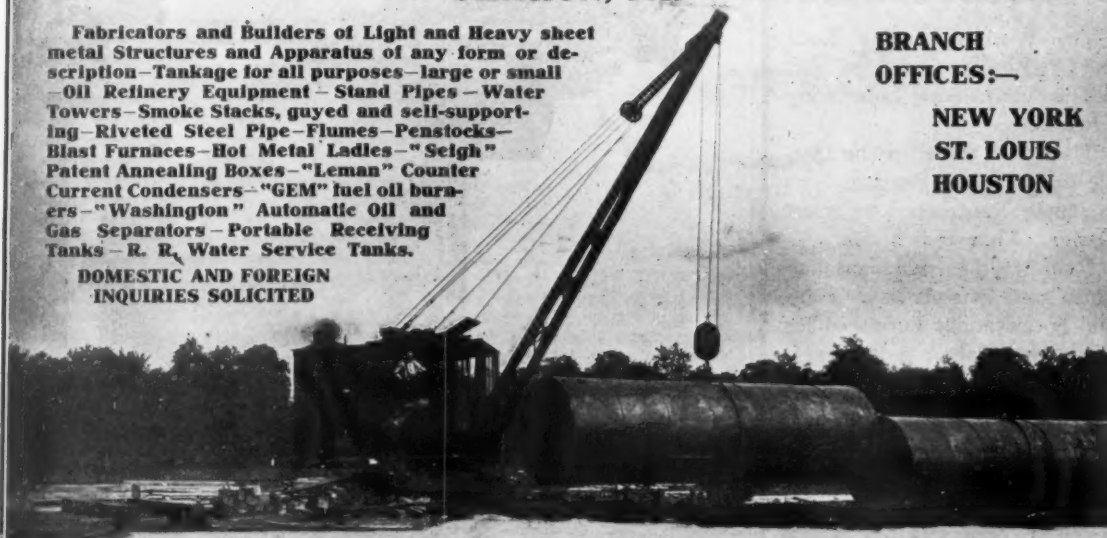
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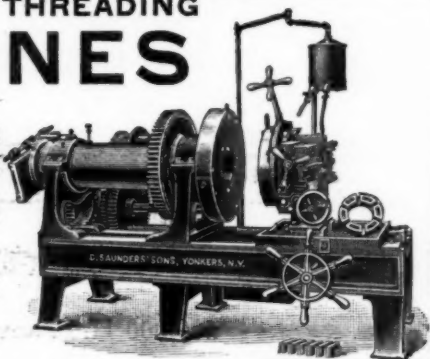
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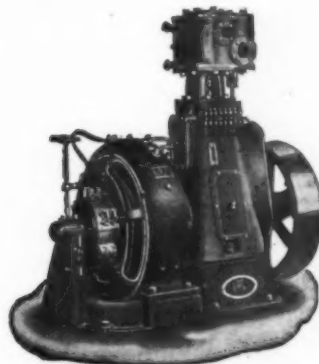
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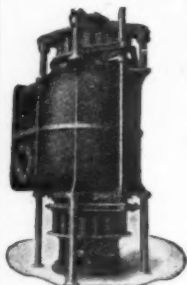
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Vol. LX. No. 6.
WEEKLY.

BALTIMORE, AUGUST 17, 1911

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ond-class matter.]

BALTIMORE, AUGUST 17, 1911.

SMALL WATER-POWERS FOR FARM OPERATIONS.

One of the most attractive mediums for making known to the world the opportunities for investment in productive developmental work in a single Southern State is the monthly publication, "The Resources of Tennessee," the first number of which has just been issued by the State Geological Survey at Nashville. This attractively-illustrated magazine contains a number of articles telling of the work of the Survey, and its leading article by John A. Switzer, associate professor of experimental engineering in the University of Tennessee, on the utilization of the small water-powers in the State is an inspiration for progressive men of the State and is suggestive for capital looking for profitable investments in the South. Just at present about 100,000 horse-power has been developed in the Tennessee, Cumberland, Green and Mississippi rivers in Tennessee, which have an aggregate undeveloped 627,000 minimum and 1,054,000 maximum horse-power. Projects under way are likely to more than double the developed water-power of the State; but, as the Survey points out, it may be possible through storage of water to secure from 2,000,000 to 4,000,000 horse-power from these streams.

The Survey is to investigate the water-powers of the State, but, in the meantime, it calls attention to the desirability of the utilization of the great number of small water-powers in all parts of the State for operations in the home, on the farm, in the small factory, and even for light and power in towns and villages. These small undertakings

do not attract capitalists of the big investing order, but have immense possibilities for the individual farmers and dwellers in rural communities. Already power from small hydro-electric plants is used for lighting the house and barn, for cutting wood, milking cows, driving churns, separators, washing machines, ice-cream freezers and tools in the machine shop, drying clothes, heating irons, pumping water, grinding feed, clipping horses, shearing sheep, cooking, and charging storage batteries for automobiles.

At Greenville, on a dairy farm, a water-wheel alone runs a feed grinder, a grist mill, an ensilage cutter, a separator, a churn, a circular saw and a grindstone, and pumps spring water to supply the house. The power comes from a small creek fed by a spring which has a total fall in the five miles of its length of about 340 feet. At Cedar Hill a dam 100 feet long and 11 feet high furnishes electric power to operate in the day a 25-horse-power grain mill and to light the home at night. Near Concord a home-made undershot wheel four feet in diameter placed in a small creek has operated for 30 years a pump 400 feet away, delivering a constant supply of well water to washroom, dairy and barn. These are illustrations of the opportunities before the farmers of Tennessee in the utilization of small water-powers, and they are opportunities which have many duplications in most of the Southern States.

BIG ORE HOLDINGS OF SLOSS COMPANY.

Mr. J. C. Maben, president of the Sloss-Sheffield Steel & Iron Co., in a letter to the MANUFACTURERS RECORD referring to a report of his company published in 1908 showing the estimated amount of iron ore owned at that time as 625,000,000 tons, of which 133,000,000 tons is the estimated quantity of brown ore, says:

I feel that the estimate made in this report is very conservative, and Mr. DeBardeleben just prior to his death, who had been investigating the Russellville brown ore field, stated to me that he thought we had double the amount of brown ore in that field that we claimed. * * * As you probably know, the ore from our Sloss mines is not only entirely self-fluxing, but is fluxing about 25 per cent. of low lime-bearing ore. Our usual mixture is three-fourths Sloss hard and one-fourth Irondale hard, the latter carrying only about 18 per cent. of lime, with no additional lime or dolomite.

If the South makes the most of the present occasion, instead of being injured by the erroneous impression created by the Stanley investigation that the Steel Corporation monopolizes Southern ores, it can turn an adverse situation to good account. The South ought to bring to the front through the widest discussion the vast extent of its iron-ore resources, and thus forever set at rest the injurious statements put forth as a result of some of the absurd things published as an outcome of the Stanley investigation.

DEVELOPING THE NATION'S GREATEST ASSET.

What a marvelous story of vast expansion in manufactures and in agriculture, of transformation, of increasing wealth, is being unfolded as from day to day the census tells in cold statistics of the capital and products of the individual States of this country.

The 16 Southern States covered by the work of the MANUFACTURERS RECORD now have more capital invested in manufacturing than the whole country had in 1880.

In 1880 the total capital invested in manufacturing in the United States was \$2,790,000,000. These 16 States had \$2,885,000,000 manufacturing capital when the present census figures were compiled in 1909, and to this several hundred million have since been added. This is a marvelous change. It should arrest every man's attention.

In 1880 the United States was justly boasting of its vast industrial interests, of its development in manufacturing and agriculture, and yet these Southern States now have several hundred million more capital engaged in manufacturing operations than the entire country then had. With such an achievement, despite the hard conditions prevailing until recent years in the development of the industrial activities of the South, how limitless are the possibilities of this section as indicated by what has already been accomplished.

In 1900 the value of the mineral products of the South was \$131,700,000. In 1909 it was \$327,421,000, and we have as yet scarcely begun to scratch the surface or even to discover the extent of the mineral wealth of the South. Southern prosperity, however, is not found in manufacturing and mining alone. The same great expansion is seen on every hand and in every line of activity.

The addition of over \$4,000,000,000 to the value of the farm properties of these States attests the progress of agriculture. In 1900 the total value of the farms of the 16 Southern States included in this comparison was \$3,233,000,000. In 1909 it was \$7,298,000,000. During the same period the value of farm buildings, more strongly indicative of increasing prosperity than even the value of farm lands, rose from \$855,000,000 to \$1,672,000,000, strikingly illustrating the vast activities in the construction of dwellings and farm buildings generally during that 10-year period. What a wonderful change must have marked the life of the farmers of these 16 States as indicated by this increase of over \$800,000,000 in the value of their farmhouses. What an advance in their financial strength, in their power to consume, their power to improve and to produce was made by the gain of \$4,000,000,000 in the value of their farm property.

This advance in farm lands and buildings finds its explanation in the increase in the value of the 12 leading crops of these States, which advanced from \$916,000,000 in 1900 to \$1,977,000,000 in 1909, a difference in the value of one year's output of over \$1,000,000,000 as compared with the output 10 years before.

Year after year from 1900 there was an ever-increasing value of Southern farm products, the momentum continuing until, as stated, the value in 1909 of these 12 leading crops, which, of course, does not by any means express the full value of the output of all Southern farm products, was \$1,000,000,000 greater than in 1900. This difference of \$1,000,000,000 in the value of these 12 crops in 1909 over 1900 is greater than the aggregate national banking capital of the United States at present, and it is going on from year to year.

Increasing productivity in agriculture and in manufactures has naturally led to an increase in foreign commerce through Southern ports. Ten years ago the combined value of the foreign exports and imports of the South figured up \$536,000,000. For the last fiscal year the figures show a total of \$896,000,000, a gain of \$360,000,000 compared with 1900.

The importance of the South as an asset in the nation's commerce is indicated in the following facts:

1. During the last fiscal year 47 per cent. of the total exports of the United States originated in the South.

2. During the same year 36.4 per cent. passed through Southern ports.

3. In that year the value of the exports from one Southern port was twice as great as the total value of the combined exports from all the ports of the entire Pacific coast of the United States, and was \$23,541,732 more than the combined values of exports and imports of the Pacific coast.

4. The value of the foreign exports from that one Southern port exceeded by \$38,389,552 the combined export trade of San Francisco, Boston and Philadelphia. In banking and in railroad operations the same wonderful increase is seen.

These figures illuminate the whole story of the South's upbuilding. Intelligently studied, they give some conception of how great must have been the activity in the establishment of new factories, the purchase of equipment for mine and mill, for the construction of dwellings, the building of wharves and warehouse, and for all the other activities which go with such a vast expansion of business. They emphasize as nothing else could do what this period of expanding activity has meant in city building operations and the limitless work connected with the engineering problems of city life, the building of streets and roads and water-works, the establishment of sewerage systems, electric-light plants and kindred enterprises.

Interesting, however, as these facts are as throwing light upon what has been accomplished, they are of infinitely more interest as illuminating the future. They

show that the South, standing erect and triumphant, is ready to go forward with a momentum it has never known before, with its material upbuilding, backed with the vast force of accumulated money, and even more important, accumulated experience in manufacturing enterprises, in mining operations and in agricultural pursuits. Starting today with a manufacturing capital exceeding by \$200,000,000 to \$300,000,000 the total manufacturing capital of the United States in 1880, and with its agricultural output exceeding by over half a billion dollars the total value of the farm crops of the United States even as late as 1890, when the value of the latter was \$2,400,000,000, against \$2,975,000,000 as the present value of the farm products of these 16 Southern States, surely here is a condition which should create abounding optimism throughout the whole country about the South. It should stimulate the energies and activities of every man interested in the continued progress of this section. It indicates what will be achieved with this magnificent foundation on which to build. From these facts may be gained some idea of the wide ramifications of Southern upbuilding in the future, how towns and cities will grow, how greater buildings for factories, for offices, for warehouses, for hotels, for schools, churches and homes will be erected in ever-increasing numbers, how railroads must expand, terminal facilities be increased, agriculture be advanced, how good roads work and street making will be pressed, and how everything that makes for the broadest activity of a richly-endowed and rapidly-growing country will move forward with redoubled energy by reason of achievements already made.

As "the development of the South means the enrichment of the nation," facts such as these should be received with as much enthusiasm by every business man in the North and West and East as by the people of the South. This land of opportunity, this land of limitless possibilities, has achieved much. In the next 10 years it will achieve infinitely more. Every manufacturer, every banker, every investor, every business man of whatever kind in the whole country is necessarily interested in such a story of the South's progress, for the South is the greatest asset of America, and its development will add enormously to the wealth and progress and power of the United States. In this re-creation of a country will be found limitless opportunities for the people of the South, as well as for the business people of other sections who want to share in the South's prosperity.

WHAT RECLAMATION IS DOING IN LOUISIANA.

Referring to the establishment of the Bank of Paradis, Paradis, the New Orleans *Picayune* says:

Five years ago Paradis was practically unknown. However, just as soon as the reclamation work was begun this growing village on the Southern Pacific attracted attention, so much so, in fact, that today the progressive citizens of that place are organizing a bank. Paradis is just 27 miles from New Orleans. It is located on one of the richest points along the Southern Pacific. New homes are now in the course of construction, and those already on the field are receiving many inquiries from their relatives and friends living in Michigan, Pennsylvania and other sections of the country as to the climate, soil conditions and health conditions.

Five years ago, when Edward Wisner, O. W. Crawford and their associates, who projected the Paradis development, including the reclamation of some 15,000 acres of land, commenced advertising the property through the *MANUFACTURERS RECORD*, there was but little faith even in Louisiana or in the country at large as to the reclamation possibilities of that State, and, of course, little or nothing was known about the Paradis section. A great interest, however, was quickly developed, and Edward Wisner, the pioneer in the work, in a recent letter to the *MANUFACTURERS RECORD*, said that millions of dollars of value had been added to the overflowed lands of that State by the publicity given the subject by the *MANUFACTURERS RECORD*. Paradis, then an unknown place, is now to become the center of large development operations, and the president of the new bank is to be Mr. Julius F. Funk, a member of the great corn-raising family of Bloomington, Ill., a family which is said to produce more high-grade seed corn than any other concern in the world. Mr. Funk and his associates are preparing a drainage plan under the State's auspices which is to include the drainage of some 16,000 or 17,000 acres of land at Paradis at a cost of several hundred thousand dollars. The location was selected by the Funks for the express purpose of raising seed corn. They regard it as one of the richest sections of the wonderfully rich lands of Louisiana, where trucking, corn-growing and other agricultural pursuits can be car-

ried on at profits so great that the mere statement of what can be done in that section is apt to produce skepticism on the part of those who have not kept advised as to the marvelous fertility of these lands.

THE RISING SKY-LINE IN THE SOUTH.

Within the past five years 100 buildings having a height of five stories or more have been erected in Texas, and there are now 168 buildings of the kind in 13 cities of that State. Houston has 22 of them, and in that city four buildings ranging from eight stories to twelve stories are now nearing completion. These manifestations in building at Houston, Dallas, San Antonio, Waco, Fort Worth, El Paso, Galveston, Beaumont, Austin and other Texan cities are observed, too, at New Orleans, Atlanta, Baltimore, Little Rock, Memphis, Nashville, Chattanooga and other leading Southern cities. They mark the steady rise of the Southern architectural sky-line. Strikingly characteristic of this tendency is a series of five announcements occupying five of the seven columns on the front page of one issue last week of the *Metropolis* of Jacksonville, Fla. Under the general head, "How Business Men Show Faith in the City," are the following announcements:

Sixteen-Story Building Is to Be Erected—Grunthal Estate Has Decided to Ornament Hogan and Bay Streets.

New Fifteen-Story Hotel on Duval Site—Big Trust Company Unites with Management of Hotel People.

Jax Will Have Skyscraper to Be 15 Stories—Modern Building to Be Erected for J. J. Heard at Laura and Forsyth.

Furchgott Co. Will have New Sales-room—Entire Top Floor of Livingston Block at Main and Forsyth Streets Secured.

Two New Hotels to Be Built in Springfield—Johnson Investment Co. and "Chic" Acosta Will Erect Hostelry on Phelps Street.

Probably \$3,000,000 or \$4,000,000 are represented in these additions to Jacksonville's architecture, typical of the wonderful transformation which has taken place in the Florida metropolis

since its disastrous fire of a few years ago. It is a mark of the increasing importance as a commercial center of that city, which in 1880 had but 7650 population and in 1910 had 57,699, an increase in 30 years of 655 per cent., and in 10 years of 103 per cent. And Jacksonville's growth is typical of the growth throughout the South.

DEVELOPING STEEL EXPORT TRADE THROUGH BALTIMORE.

Mr. James A. Farrell, president of the United States Steel Corporation, in a letter to the *MANUFACTURERS RECORD*, referring to the handling of the export trade as well as the local business of some of the Pittsburg subsidiary companies of the United States Steel Corporation, says:

We have had in contemplation the establishment of warehouses in Baltimore to facilitate the distribution of steel materials to jobbers and other large consuming interests in the territory contiguous to Baltimore, as well as for the purpose of supplying many of the foreign markets which can be reached from Baltimore to good advantage, realizing the growing importance of Baltimore as an exporting point.

Mr. Farrell adds that, while he cannot at present give any information as to the cost and size of buildings, details are being worked out for these proposed warehouses.

This movement on the part of the Steel Corporation is but another illustration of the growing importance of Baltimore and the whole South, for it means that a considerable amount of nearby Southern territory will be covered from Baltimore. It also throws light on the plans which the Steel Corporation is steadily carrying forward for the development of its foreign trade. There is probably no man connected with the iron and steel trade of the world more intimately acquainted with the iron and steel producing and consuming capacity of every country in the world than Mr. Farrell. As president for many years of the exporting branch of the Steel Corporation, he laid the foundations through personal work and personal acquaintanceship in all parts of the world for the rapid expansion which is now being made in the foreign trade of the Steel Corporation. In an interview in Pittsburg last week Mr. Farrell referred to the fact that in Great Britain and on the Continent the largest steel plants export from 30 to 60 per cent. of their output. Referring to the possibilities of the development of the export trade from the Pittsburg region, he said:

Not only is it located to satisfy the perennially great demands of its contiguous territory, but it may look forward to an increasing foreign business, the extent of which may be conjectured from the fact that the United States Steel Corporation is now approaching 2,000,000 tons of exports annually, the bulk of which is produced in its mills in Pittsburg and vicinity, which is made possible by the largely increased capacity of the mills of the Carnegie Steel Co. and its other subsidiaries.

The establishment of warehouses in Baltimore is regarded by Mr. Farrell as one of the necessary movements for the proper distribution of products without taxing the Pittsburg mills with small, difficult and urgent specifications. The requirements of these warehouses will be supplied to a large extent from Pittsburg, and the development of the export trade will tend to insure steady operations of the Pittsburg plants.

It may safely be counted upon that with the furtherance of the plans which President Farrell and his associates

have for the expansion of the foreign trade of the Steel Corporation full recognition will be given to the facilities of the Birmingham district for producing steel products at a cost which will justify the handling of a large foreign trade at Birmingham through the Gulf ports to the various markets of the world that may be advantageously reached in that way. It is quite safe to figure on a very large expansion in the export trade of the Steel Corporation not only through Baltimore and the Gulf ports, but from other ports of the country. With the growth of the foreign trade of the Steel Corporation there will undoubtedly be developed a large export trade by the other great steel-producing concerns of the country, such as Jones & Laughlin Company, the Bethlehem Steel Co., the Maryland Steel Co. and others. The steel interests of this country have definitely entered the world's markets, and with their vast capital they will be enabled to develop a foreign trade commensurate with our producing capacity and with the world's growing needs for iron and steel.

TOWNWARD DRIFT OF SOUTHERN POPULATION.

One of the most striking phases of the movement of population in the past 20 years is the drift from the rural districts to towns and cities. In that period, with the aggregate population increasing from 62,622,260 to 91,972,266, or at the rate of 47 per cent. in Continental United States, the urban population—that is, the inhabitants of towns and cities having a population of 2500 or more each—has increased from 22,606,632 to 42,623,383, or at the rate of 88 per cent. The increase of the total population in the South in that period has been at the rate of 40 per cent., and in the rest of the country at the rate of 49.9 per cent., while the increase in urban population in the South has been at the rate of 94.9 per cent., and the rate of such increase in the rest of the country has been 87.5 per cent. Still the proportion of urban population to total population in the South, or 22.6 per cent., is much less than the proportion in the rest of the country, 56 per cent. The proportion of urban population by sections is shown in the following table:

Urban Population by Sections in 1910

States.	Population in 1910.		Per cent. of urban population in—	
	Total.	Urban.	1910.	1900.
New England.....	6,552,681	5,455,345	83.3	81.3
Middle.....	37,768,835	23,437,729	62.1	62.8
W. Rocky.....	14,516,118	4,775,352	32.7	32.7
Trans-Rocky.....	5,594,779	2,748,359	49.3	49.3
Southern.....	27,529,853	6,206,598	22.6	22.6
Total.....	91,972,266	42,623,383	46.3	46.3

The figures of total population and urban population in the South by individual States in 1910, together with the per cent. of urban of total population in 1890, 1900 and 1910, are shown in the following table:

States.	Population in 1910.		Per cent. of urban of total population in—	
	Total.	Urban.	1910.	1900.
Ala.....	2,139,923	570,431	26.7	26.1
Ark.....	1,574,449	202,681	12.9	8.5
D. C.....	331,069	331,069	100	100
Fla.....	752,619	219,080	29.1	20.3
Ga.....	2,699,121	538,650	20.0	15.6
Ky.....	2,289,905	555,442	24.3	21.8
La.....	1,656,388	496,516	30.0	25.4
Miss.....	1,295,346	658,192	50.8	49.8
Mo.....	1,797,114	297,311	16.5	7.7
N. C.....	2,206,287	318,474	14.4	9.9
S. C.....	1,515,490	224,832	14.8	12.3
Tenn.....	2,184,789	441,045	20.2	16.2
Tex.....	3,896,542	938,104	24.1	17.1
Va.....	2,061,612	476,529	23.1	18.3
W. Va.....	1,221,119	228,242	18.7	13.1
Total.....	27,529,853	6,206,598	22.6	19.1
Mo.....	3,293,335	1,398,817	42.5	35.3
Okl.....	1,657,155	320,155	19.3	7.4
U. S.....	91,972,266	42,623,383	46.3	46.3

In all of the six New England States except Vermont in 1910 the urban population was more than half the total pop-

lation, and in Rhode Island it constituted 96.7 per cent. of the total. In five of the Middle States—New York, New Jersey, Pennsylvania, Ohio and Illinois—the urban population was more than half the total, and it was less than half the total in Delaware, Indiana, Michigan and Wisconsin. The urban population was greater than the rural population in Washington and California, but was less in the other Trans-Rocky States—Idaho, New Mexico, Arizona, Utah, Nevada and Oregon.

In the Cis-Rocky States—Minnesota, Iowa, Missouri, Oklahoma, North Dakota, South Dakota, Nebraska, Kansas, Montana, Wyoming and Colorado—there was but one State, Colorado, in which the urban population was greater than the rural population.

Maryland, where the population of Baltimore city alone constitutes more than 43 per cent. of the total population, was the only Southern State in which the population was divided about equally between city and country. The per cent. of urban population in the South was only 22.6, and, in addition to Maryland, only five States had a proportion of urban population greater than the average proportion for the whole section. Those States are Louisiana, with 30 per cent. of its population urban; Florida, with 29.1 per cent.; Kentucky, with 24.2 per cent.; Texas, with 24.1 per cent., and Virginia, with 23.1 per cent.

The increases in urban population and rural population in the South between 1900 and 1910 is shown by the individual Southern States in the following table:

States.	Urban population, 1910.	Urban population, 1900.	Increase Per cent.	Rural population, 1910.	Rural population, 1900.	Increase Per cent.
Alabama.....	370,431	235,177	57.5	1,767,662	1,593,530	10.9
Arkansas.....	202,681	131,719	53.9	1,371,768	1,179,845	16.3
District of Columbia.....	331,069	278,718	18.8
Florida.....	219,080	126,287	73.5	533,539	402,255	32.6
Georgia.....	538,650	376,052	43.2	2,070,471	1,840,279	12.5
Kentucky.....	555,442	483,233	14.9	1,734,463	1,633,941	4.2
Louisiana.....	496,516	380,997	30.3	1,159,872	1,000,628	15.9
Maryland.....	658,133	593,133	11.1	637,154	594,911	7.1
Mississippi.....	297,311	129,665	59.9	1,589,893	1,421,005	11.8
North Carolina.....	318,474	208,215	53.1	1,894,518	1,665,595	13.8
South Carolina.....	224,832	177,270	26.8	1,290,568	1,163,946	11.1
Tennessee.....	441,945	335,722	31.4	1,743,744	1,684,394	3.5
Texas.....	938,104	559,872	67.6	2,958,438	2,488,838	18.9
Virginia.....	476,529	354,861	34.3	1,585,083	1,499,323	5.7
West Virginia.....	228,242	137,464	66.1	962,877	821,336	20.9
Total.....	6,206,598	4,508,382	37.7	21,323,255	19,040,016	11.9
Missouri.....	1,398,817	1,143,431	22.3	1,894,518	1,963,234	*3.5
Oklahoma.....	329,155	89,148	259.1	1,337,000	701,243	90.7
United States.....	42,623,383	31,587,542	34.9	49,348,883	44,407,033	11.1

*Decrease.

In 1910 there were 41 cities in the South having a population of 25,000 or more. The increase in those cities in 10 years had been at the rate of 34.4 per cent. But the increase in that period in the urban population of the South had been 37.7 per cent., so that the rate of increase in towns and cities having less than 25,000 inhabitants was greater than that for the 41 larger cities of the South.

Between 1900 and 1910 the urban population of the South increased from 4,508,382 to 6,206,598, a gain of 1,698,216, equal to 37.7 per cent., and the increase in urban population in the rest of the country was from 27,079,157 to 36,410,785, a gain of 9,337,628, equal to 34.4 per cent. In the preceding 10 years the increase had been 1,325,375, or at the rate of 41.7 per cent. in the South, and 7,555,535, or at the rate of 39.5 per cent. in the rest of the country, while in the 20 years between 1890 and 1910 the increases had been 3,023,588, or at the rate of 94.9 per cent. in the South, and 16,903,163, or at the rate of 87.5 per cent. in the rest of the country. In both the South and in the rest of the country there was a decline in the rate of increase of urban population in the second half of the 20-year period. There was a decline, too, in that second half in the rate of increase of the rural popu-

lation of the South from 15.9 per cent. between 1890 and 1900 to 11.9 per cent. between 1900 and 1910. But there was an increase in this rate in the rest of the country from 7.5 per cent. to 10.5 per cent.

HOW THE B. & O. TELLS A WEST VIRGINIA STORY.

"Marvelous Progress of West Virginia" is the title of a full-page advertisement in which the Baltimore & Ohio Railroad in this week's issue presents statistical comparison of the material development of West Virginia in 1900 and 1910. It is a very graphic way of utilizing an advertising situation to present facts of interest to every man living in West Virginia, as well as to every man who can by any possibility be interested in studying what West Virginia is doing. The story as presented shows that the coal output of West Virginia increased from 22,000,000 tons in 1900 to 60,000,000 tons in 1910. In the same time the value of property increased from \$659,000,000 to \$1,160,000,000. In the same period the resources of national banks in West Virginia nearly trebled, increasing from \$25,000,000 to \$72,000,000. Individual deposits in national banks increased from \$15,500,000 to \$44,000,000. The capital invested in manufacturing interests advanced from \$49,000,000 to \$150,000,000. This interesting way of advertising West Virginia in order to advertise that portion of it tributary to the Baltimore & Ohio and its branches can be studied with great profit by railroads and others seeking to make known the possibilities of development of other Southern States.

Iron Ore in a Georgia Property.

H. H. Shakelton, resident manager of the Silver Creek Furnace Co., Rome, Ga., writing in regard to the amount of iron ore owned by that company and Mr. R. G. Peters, says:

"Mr. Peters owns a vein of red ore extending from Southern end of Chattooga county, Georgia, running northeast into Walker county, which is 27 miles in length; he owns all the outcrop, estimated at 60,000,000 tons of soft red ore, which will run 49 per cent. metallic iron in carload lots, in this tract. This is all soft ore, and could be mixed with limy ores and could take place of brown ores in making basic iron. The Michigan Trust Co. also holds for Mr. Peters a tract of brown iron ore in Cherokee county, Georgia, two miles from the Louisville & Nashville Railway. Dr. Phillips, now State Geologist of Texas, reported that there is 20,000,000 tons of brown ore which would run 47 per cent. metallic in carload lots on one-half of this property. The other half is equally as good. If some large company could be interested to acquire a good tract of coal land near Chattanooga, put in a by-product plant, selling the gas or power from the gas to Chattanooga, basic iron could be made from this raw material at a price of \$6.50 per ton."

Southern Industrial Progress in Two Decades.

Southern manufacturing is now producing goods to the value of at least \$3,000,000,000 annually, or more than twice as much as in 1900, and more than three times as much as in 1890, 21 years ago. The increase in the value of manufactured products in the South between 1900 and 1909 was about equal to the actual value of such products in 1900. In the 20 years between 1880 and 1900 the annual value of the products of manufacturing in the South increased 219 per cent., while the increase in such value in the rest of the country was 135 per cent. Since 1900, although there has not been as wide a divergence in the rates of increase in the annual value of manufactured products in the South and in the rest of the country, the rate is still much greater in the South.

Of significance in this connection is the fact that whereas in 1880 the value of Southern agricultural products was \$200,000,000 in excess of the value of manufactured products, Southern manufacturing has now an annual production \$400,000,000 greater than the South's agricultural output, and that, too, notwithstanding the enormous increase in the value of agricultural products.

The recent industrial progress of the South is strikingly emphasized in a comparison, in the accompanying tables, of the amount of capital invested in factories, not including hand trades and neighborhood industries embraced in the census of manufactures of 1900 and earlier periods, and the value of their products in 1900, 1904 and 1909 in individual Southern States and in the whole country. The figures show that between 1900 and 1909 there was an increase in the capital invested in factories in the South from \$968,467,000 to \$2,403,364,000, a gain of \$1,434,897,000, equal to 141.8 per cent., while the increase in the rest of the country was from \$8,006,789,000 to \$16,330,197,000, a gain of \$8,323,708,000, equal to 102.9 per cent. In the same period there was an increase in the value of factory products in the South from \$1,239,746,000 to \$2,535,451,000, a gain of \$1,295,705,000, or 104.5 per cent., while the increase in the rest of the country was from \$10,167,181,000 to \$18,193,047,000, a gain of \$8,025,866,000, or 78.9 per cent.

The total capital and the total value of products for the United States as a whole in 1900 are conservatively estimated upon the basis of returns from 29 of the 34 States not included in the South.

The capital invested in factories in the South increased between 1900 and 1904 from \$968,467,000 to \$1,597,637,000, or

States.	1900.	1904.	1909.
Alabama.....	\$60,166,000	\$105,383,000	\$173,479,000
Ark.....	25,385,000	46,306,000	70,139,000
D. C.....	17,969,000	20,200,000	20,971,000
Fla.....	25,682,000	32,972,000	65,128,000
Ga.....	79,903,000	135,212,000	202,913,000
Ky.....	87,996,000	147,282,000	172,779,000
La.....	109,875,000	150,811,000	221,806,000
Mo.....	149,155,000	201,878,000	251,237,000
Miss.....	22,712,000	50,256,000	72,393,000
N. C.....	68,283,000	141,001,000	217,183,000
S. C.....	62,750,000	113,422,000	173,221,000
Tenn.....	63,141,000	102,439,000	167,824,000
Tex.....	63,654,000	115,965,000	216,876,000
Va.....	92,360,000	147,989,000	216,392,000
W. Va.....	49,103,000	86,831,000	150,923,000

Tl. \$968,467,000 \$1,597,637,000 \$2,403,364,000
Mo. \$223,781,000 \$379,309,000 \$442,847,000
Okla. \$4,054,000 \$16,124,000 \$38,873,000
U. S. \$9,975,256,000 \$12,675,581,000 \$18,733,861,000
*Partly estimated.

by \$629,170,000, equal to 64.9 per cent., and between 1904 and 1909 from \$1,597,637,000 to \$2,403,364,000, a gain of \$805,727,000, equal to 50.4 per cent., and the increase between 1900 and 1909 was \$1,434,897,000, equal to 141.8 per cent.

In the rest of the country the increase in such capital was from \$8,006,789,000

to \$11,077,944,000, a gain of \$3,071,155,000, or 38.3 per cent., between 1900 and 1904, and from \$11,077,944,000 to \$16,330,197,000, a gain of \$5,252,253,000, or 47.4 per cent., between 1904 and 1909, while the increase between 1900 and 1909 was \$8,323,708,000, or 103.9 per cent.

Capital Invested in Factories, Increase

States.	1900-1904.	P. C.	1904-1909.	P. C.
Alabama.....	\$45,217,000	75.1	\$68,096,000	64.6
Ark.....	20,921,000	82.4	23,833,000	51.5
D. C.....	2,340,000	12.5	10,771,000	53.3
Fla.....	7,290,000	28.4	32,156,000	97.5
Ga.....	55,909,000	70.5	67,701,000	50.1
Ky.....	56,296,000	67.6	25,497,000	17.3
La.....	49,336,000	49.5	70,995,000	47.1
Mo.....	125,723,000	35.3	49,359,000	24.4
Miss.....	27,544,000	121.3	22,137,000	44.1
N. C.....	72,718,000	106.5	76,182,000	54.4
S. C.....	50,672,000	80.7	59,799,000	52.6
Tenn.....	39,298,000	62.3	65,485,000	63.9
Tex.....	62,009,000	81.7	101,211,000	87.5
Va.....	55,689,000	60.3	68,403,000	46.2
W. Va.....	37,718,000	76.8	64,102,000	74.1

Tl. \$629,170,000 64.9 \$905,727,000 50.4
Mo. \$155,588,000 69.5 \$63,478,000 16.7
Okla. \$12,070,000 297.7 \$22,749,000 141.1
U. S. \$2,700,325,000 41.2 \$8,658,290,000 47.8
*Partly estimated.

330,497,000, a gain of \$5,252,253,000, or 47.4 per cent., between 1904 and 1909, while the increase between 1900 and 1909 was \$8,323,708,000, or 103.9 per cent.

In the value of factory products the increase in the South was from \$1,239,746,000 to \$1,787,975,000, a gain of \$548,229,000, or 44.3 per cent., between 1900 and 1904, and from \$1,787,975,000 to \$2,535,451,000, a gain of \$747,076,000, or 41.2 per cent., between 1904 and 1909, while the gain between 1900 and 1909 was \$1,295,705,000, or 104.5 per cent.

States.	1900.	1904.	1909.
Alabama.....	\$72,110,000	\$109,170,000	\$146,431,000
Ark.....	39,888,000	53,864,000	74,818,000
D. C.....	16,426,000	18,359,000	28,000,000
Fla.....	34,184,000	59,298,000	72,724,000
Ga.....	94,532,000	151,040,000	202,641,000
Ky.....	126,509,000	159,751,000	223,754,000
La.....	111,338,000	186,380,000	232,928,000
Mo.....	211,076,000	243,376,000	317,570,000
Miss.....	33,719,000	67,451,000	80,555,000
N. C.....	85,274,000	142,521,000	216,614,000
S. C.....	53,336,000	79,376,000	113,236,000
Tenn.....	92,749,000	137,960,000	180,130,000
Tex.....	92,894,000	150,528,000	272,896,000
Va.....	108,644,000	148,857,000	219,794,000
W. Va.....	67,007,000	99,041,000	161,960,000

Tl. \$1,239,746,000 \$1,787,975,000 \$2,535,451,000
Mo. \$316,304,000 \$439,549,000 \$572,085,000
Okla. \$8,134,000 \$24,459,000 \$53,682,000
U. S. \$11,406,827,000 \$14,793,903,000 \$20,728,098,000
*Partly estimated.

000, or 44.3 per cent., between 1900 and 1904, and from \$1,787,975,000 to \$2,535,451,000, a gain of \$747,076,000, or 41.2 per cent., between 1904 and 1909, while the gain between 1900 and 1909 was \$1,295,705,000, or 104.5 per cent.

The increase in the value of factory products in the rest of the country was from \$10,167,181,000 to \$13,005,928,000,

States.	1900-1904.	P. C.	1904-1909.	P. C.
Alabama.....	\$37,060,000	51.4	\$37,261,000	34.1
Ark.....	13,976,000	35.1	20,954,000	28.9
D. C.....	1,933,000	11.8	9,641,000	52.5
Fla.....	16,114,000	47.1	22,426,000	44.6
Ga.....	56,508,000	59.8	51,001,000	34.1
Ky.....	33,245,000	26.3	64,000,000	40.1
La.....	74,982,000	67.3	37,548,000	20.1
Mo.....	32,300,000	15.3	74,184,000	30.9
Miss.....	23,732,000	70.4	23,104,000	40.2
N. C.....	57,247,000	67.1	74,093,000	51.9
S. C.....	26,040,000	48.8	33,860,000	42.7
Tenn.....	45,211,000	46.8	42,170,000	30.6
Tex.....	57,634,000	62.1	122,368,000	81.2
Va.....	40,213,000	37.1	70,937,000	47.6
W. Va.....	32,064,000	47.9	62,910,000	64.1

Tl. \$548,229,000 44.3 \$747,076,000 41.2
Mo. \$123,245,000 68.9 \$132,536,000 30.1
Okla. \$16,315,000 200.6 \$29,223,000 138.1
U. S. \$3,386,976,000 29.7 \$5,334,195,000 40.1
*Partly estimated.

a gain of \$2,828,747,000, or 27.9 per cent., between 1900 and 1904, and from \$13,005,928,000 to \$18,193,047,000, a gain of \$5,187,119,000, or 39.9 per cent., between 1904 and 1909.

States.	Capital.	Products.
Alabama.....	\$113,313,000	\$74,321,000
Ark.....	44,754,000	34,930,000
D. C.....	13,011,000	11,574,000
Fla.....	39,446,000	38,540,000
Ga.....	123,610,000	108,109,000
Ky.....	84,783,000	97,245,000
La.....	120,931,000	112,530,000
Mo.....	102,082,000	108,484,000
Miss.....	49,681,000	46,836,000
N. C.....	148,990,000	131,340,000
S. C.....	110,471,000	59,900,000
Tenn.....	104,783,000	87,381,000
Tex.....	153,220,000	180,002,000
Va.....	124,092,000	11,150,000
W. Va.....	101,820,000	94,953,000

Tl. \$1,434,897,000 141.8 \$1,295,705,000 104.5
Mo. \$219,066,000 97.9 \$255,781,000 30.9
Okla. \$34,819,000 858.8 \$45,548,000 529.9
U. S. \$9,758,005,000 108.8 \$19,321,171,000 81.7
*Partly estimated.

187,119,000, or 30.9 per cent., between

1904 and 1909, while the increase between 1900 and 1909 was \$8,025,866,000, equal to 78.9 per cent.

The greater rate of increase, both in capital and in value of products, was in the first four years of the nine-year period in the South and in the rest of the country in the last five years of that period. Dealing with the nine-year period in the South, 1909 found Maryland leading in that section in the amount of capital invested in factories, having \$251,237,000 so invested; Louisiana second, with \$221,806,000; North Carolina third, \$217,183,000; Texas fourth, \$216,876,000; Virginia fifth, \$216,392,000, and Georgia sixth, \$202,913,000. Texas led in the rate of increase in capital in the nine years, its per cent. being 240.7, with Mississippi second, 218.7 per cent.; North Carolina third, 218 per cent.; West Virginia fourth, 207.3 per cent.; South Carolina fifth, 176 per cent.; Arkansas sixth, 172.3 per cent. In actual amount the greatest increase was also in Texas, it being \$153,220,000, with North Carolina second, \$148,900,000; Virginia third, \$124,092,000; Georgia fourth, \$123,610,000; Louisiana fifth, \$120,931,000, and Alabama sixth, \$113,313,000.

Maryland ranked first in 1909 in the value of factory products, which amounted to \$317,570,000, and Texas second, with \$272,896,000; Louisiana third, with \$223,928,000; Kentucky fourth, with \$223,754,000; Virginia fifth, with \$219,794,000, and North Carolina sixth, with \$216,614,000. Texas led in the rate of increase in the nine years with 193.8 per cent., and North Carolina was second, 155.3 per cent.; West Virginia third, 141.7 per cent.; Mississippi fourth, 138.6 per cent.; Georgia fifth, 114.3 per cent., and Florida sixth, 112.7 per cent. In actual amount of increase Texas led with \$180,002,000, North Carolina being second, with \$131,340,000; Louisiana third, with \$112,530,000; Virginia fourth, with \$111,150,000; Georgia fifth, with \$108,109,000, and Maryland sixth, with \$106,494,000.

The increases, both in capital invested in factories and in the value of factory products in the South, were much greater

Capital in Manufacturing.*

States.	1890.	1900.
Ala.....	\$46,123,000	\$70,370,000
Ark.....	14,972,000	35,961,000
D. C.....	28,865,000	41,981,000
Fla.....	11,110,000	35,107,000
Ga.....	56,922,000	89,730,000
Ky.....	79,812,000	104,071,000
La.....	34,754,000	113,084,000
Mo.....	119,697,000	163,147,000
Miss.....	14,897,000	35,807,000
N. C.....	32,746,000	76,594,000
N. S.....	29,276,000	67,356,000
Tenn.....	51,475,000	71,814,000
Tex.....	46,815,000	90,434,000
Va.....	63,457,000	103,671,000
W. Va.....	28,118,000	55,904,000

Tl.....	\$659,009,000	\$1,153,001,000
Mo.....	\$189,559,000	\$249,889,000
Okla.....	\$300,000	\$5,976,000
U. S.....	\$6,525,051,000	\$9,831,487,000

*Including hand trades and neighborhood industries.

in the nine years between 1900 and 1909 than the increases in the capital invested in manufacturing and in the value of man-

Products of Manufacturing.*

States.	1890.	1900.
Ala.....	\$51,227,000	\$80,741,000
Ark.....	22,659,000	45,198,000
D. C.....	39,331,000	47,668,000
Fla.....	18,223,000	36,810,000
Ga.....	68,917,000	106,655,000
Ky.....	126,720,000	154,166,000
La.....	57,807,000	121,182,000
Mo.....	171,843,000	242,553,000
Miss.....	18,706,000	40,431,000
N. C.....	49,375,000	94,920,000
N. S.....	31,927,000	58,749,000
Tenn.....	72,355,000	108,145,000
Tex.....	70,434,000	119,415,000
Va.....	88,364,000	132,173,000
W. Va.....	38,702,000	74,838,000

Tl.....	\$917,590,000	\$1,463,644,000
Mo.....	\$324,562,000	\$385,493,000
Okla.....	\$429,000	\$10,976,000
U. S.....	\$9,372,379,000	\$13,010,037,000

*Including hand trades and neighborhood industries.

ufactured products in the 10 years between 1890 and 1900. In the manufacturing items of that 10-year period, it should be remembered, are included the

figures of hand-trades and neighborhood industries, not considered in the census of factories in 1900, 1904 and 1909.

In the 10 years, 1890-1900, the capital invested in manufacturing in the South increased from \$659,009,000 to \$1,153,

Manufacturing Increase 1890-1900.*

States.	Capital.	Products.
Ala.....	\$24,247,000 52.5	\$29,514,000 57.6
Ark.....	20,989,000 140.1	22,539,000 59.5
D. C.....	13,116,000 45.4	8,337,000 21.2
Fla.....	21,997,000 197.9	18,587,000 101.9
Ga.....	32,868,000 57.7	37,738,000 54.7
Ky.....	24,259,000 30.4	27,446,000 21.6
La.....	78,330,000 225.4	63,375,000 109.5
Mo.....	43,480,000 36.3	70,710,000 41.1
Miss.....	20,910,000 140.2	20,710,000 116.1
N. C.....	43,758,000 133.6	54,545,000 135.1
N. S.....	38,080,000 139.	26,822,000 84.
Tenn.....	20,339,000 39.5	35,790,000 49.4
Tex.....	43,619,000 93.1	48,981,000 49.5
Va.....	40,214,000 63.3	43,809,000 49.6
W. Va.....	27,786,000 98.8	36,136,000 93.3

Tl.....	\$493,992,000 74.9	\$546,051,000 59.5
Mo.....	\$60,330,000 31.8	\$60,931,000 18.8
Okla.....	\$5,676,000 189.	\$10,547,000 245.5
U. S.....	\$3,306,436,000 50.6	\$3,728,658,000 39.8

*Including hand trades and neighborhood industries.

001,000, a gain of \$493,992,000, or 74.9 per cent., against an increase of \$1,434,897,000, or 141.8 per cent., in the succeeding nine years, and the increase in the value of manufactured products between 1890 and 1900 was from \$917,590,000 to \$1,463,644,000, equal to \$546,054,000, or 59.5 per cent., against an increase in the value of factory products in the next nine years of \$1,295,305,000, equal to 104.5 per cent. In the rest of the country between 1890 and 1900 the increase in manufacturing capital was from \$5,866,042,000 to \$8,678,486,000, a gain of \$2,812,444,000, or 47.9 per cent., against a gain of \$8,823,708,000, or 103.9 per cent., in the next nine years, and the increase in the value of manufactured products was from \$8,454,789,000 to \$11,546,393,000, a gain of \$3,091,604,000, or 36.3 per cent., against an increase of \$8,025,866,000, or 78.9 per cent., in the succeeding nine years.

Big Piece of Sewerage Work.

The beginning by the Elkan-Tufts Construction Co. on its \$533,990 contract for building the storm-water mains and boulevard where Jones' Falls Creek now flows a polluted stream through Baltimore marks the beginning of a great transformation in the appearance and physical conditions of a central section of the city.

*This company consists of three Georgians—M. M. Elkan, Arthur Tufts and R. B. Tufts. Some of the contracts have been let by the company for material to be used, including 53,000 barrels of Portland cement awarded to the Universal Portland Cement Co., 2000 tons reinforcing steel to the Philadelphia Steel & Wire Co., Philadelphia. Contracts are yet to be awarded on 40 tons of structural steel, 140,000 feet of piling, 2000 feet of foundation lumber, 50 tons of cast-iron pipe and 900 linear feet of vitrified sewer pipe, and the sand and gravel that will be needed. The office of this construction company is at 722 E. Pratt street, and a field office located at the scene of the work is now at Lexington street and Jones' Falls.

The work will consist in excavating 28,000 cubic yards of earth and 900 cubic yards of rock; then building a reinforced concrete sewer 2800 feet long, consisting of three parallel conduits, each 15 feet high by 20 feet wide, with a surface over it all in the shape of a boulevard 68 feet wide, which will finally be paved, lighted and finished as a smooth and attractive boulevard. The machinery necessary to carry on this work will include several concrete mixers, piledrivers, excavators, hoists, etc., which will be purchased as required in the progress of the work.

The work is to be prosecuted energetically, and it is expected that it will be completed about December 31, 1912. Several hundred men will be employed.

This work will mark a transformation so great that people will marvel that it was not done years ago. Jones' Falls is an uncovered sluggish stream that flows through the heart of Baltimore, and into which much sewage flows. It is an eyesore and a menace to health. It will now be turned into a splendid street under which these three immense conduits will carry off all water, even when heavy storms cause a great flood of water from the up-country drained by this stream.

Birmingham Iron Market.

[Special Cor. Manufacturers Record.]

Birmingham, Ala., August 15.

The developments in the local pig-iron market during the past week were very satisfactory to all parties concerned. A fair volume of business for prompt shipment and delivery over the remainder of the year was offered the producing interests, while a canvass of the consuming industries indicate a very satisfactory condition of order-books in that direction. No large quantities have been engaged since last report, a lot of 1000 tons for delivery over the remainder of the year having been the largest tonnage involved in a single transaction closed during the past fortnight. A comparatively small extent to which buyers have contracted recently is accounted for by the manner in which producing interests generally have adhered to the advanced asking prices, and does not necessarily mean a feeling of uncertainty of conditions in the foundry trade, as the daily rate of shipments from the various furnace plants has so far this month been considerably in excess of the rate during July. The aggregate of small orders recently placed is fairly attractive. One producer reports 1500 tons sold in small lots during the past week; another reports 3700 tons, and still another reports 1100 tons, which was sold for strictly last quarter delivery. This last tonnage mentioned brought \$11 per ton Birmingham for No. 2 soft, but it is probable that the price paid is due to the preference of the purchaser for the particular brand bought. It is noted that for some weeks now certain of the producers have adhered strictly to a \$11 per ton basis for last quarter delivery, and that within the week a leading concern advanced prices to a \$11 schedule for any delivery during the remainder of the year. The most significant development in the local situation since last report was the confirmation of the sale to the United States Cast Iron Pipe & Foundry Co. of the Dimmick Pipe Co. plant, and the announcement that operations at that plant will soon be resumed. The plant referred to was formerly one of the largest consumers of foundry iron in this district, and the suspension of operations several months ago has accounted to a certain extent for the present accumulation of stock on a certain furnace yard. It will be recalled that at one time the cast-iron pipe manufacturers consumed approximately 65 per cent. of the aggregate production of foundry iron in this State, whereas the consumption during the past six months has probably been less than 50 per cent. of the aggregate production. There has been no change in the number of active furnaces since August 1, and, with the exception of the Alice furnace of the Tennessee Coal, Iron & Railroad Co., which is scheduled to go in blast on basic iron August 18, it is probable that no additions will be made during this month. The situation as a whole is very much stronger, both in sentiment and in the volume of business actually being transacted, and the present schedule of prices will no doubt be maintained. For shipment within the next 60 days we quote as below, with an advance of 50 cents per ton over those figures

quotable for strictly last quarter shipment per gross ton f. o. b. cars at Birmingham furnaces: No. 1 foundry, \$11; No. 2 foundry, \$10.50; No. 3 foundry, \$10; No. 4 foundry, \$9.75; gray forge, \$9.25; mottled, \$9.

In the cast-pipe industry the volume of business transacted since last report is not unusually large for such a period. Several lettings of importance are being advertised for an early date, but the new business actually in sight consists principally of lots of 500 to 750 tons each. The capacity now in operation is well supplied with orders for the next 60 to 90 days, but the proposed resumption of operation at the Dimmick plant causes more or less apprehension of ultimate developments. We quote class "B," water pipe, as follows per net ton f. o. b. cars here: Four-inch to six-inch, \$23; 8-inch to 12-inch, \$22; over 12-inch, average \$21, with \$1 per ton extra for class "A," or gaspipe. Special fittings are quotable at from \$35 to \$60 per ton.

Considerable more interest has been manifested by the consumers of old material, but so far without affecting prices. The local consumption is somewhat larger than for a few weeks past, and it is understood, though not from an official source, that all the departments of the large mill now closed down will soon be in operation. At this time the demand for light cast and machinery scrap predominates, which is due largely to the scarcity and consequent high prices for low-grade pig-iron. We do not see fit to revise dealers' asking prices for any grades, and continue to quote nominally as follows per gross ton f. o. b. cars here:

Old iron axles, standard, \$15.50 to \$16.
Old iron axles, small, \$12 to \$13.50.
Old steel axles, light, \$13 to \$13.50.
Old steel axles, standard, \$14 to \$14.50.
Old iron rails, \$13 to \$14.
No. 1 railroad wrought, \$11.50 to \$12.
No. 2 railroad wrought, \$8 to \$8.50.
No. 1 country, \$7 to \$7.50.
No. 2 country, \$6.50 to \$7.
No. 1 machinery, \$8.50 to \$9.
No. 1 steel, \$9 to \$9.50.
Standard car wheels, \$11 to \$11.50.
Tram car wheels, \$8 to \$8.50.
Light cast and stove plate, \$7 to \$7.50.

The market for standard brands of foundry coke continues fairly accurate, with prices being fully maintained. The demand for furnace coke continues very light, comparatively, and prices for that grade of material have suffered. Within the week the Pratt Consolidated Coal Co. leased its "Banner" mines to the State of Alabama, and the property will be operated by State convicts under the State's lease. It is understood that the State proposes to mine 1000 tons of coal daily from the "Banner" property, which has already been sold to the Pratt Consolidated Coal Co.

A larger percentage of the finishing capacity at the plant of the Southern Iron & Steel Co. at Alabama City, Ala., is being operated, but there is yet no definite announcement as to the date the open-hearth furnaces will be put in blast. Operations were resumed at the rolling mill owned by the Southern Iron & Steel Co. today, with a fairly attractive volume of business on order-books.

F. B. Keiser resigned as vice-president and general manager of the Southern Iron & Steel Co., effective August 1. A successor to Mr. Keiser has not yet been appointed.

The plant of the Pan-American Manufacturing Co. at Anniston, Ala., has been leased by the creditors to the Lee Foundry Co. of Anniston, and will be operated in the production of structural castings and hardware specialties.

Rich Resources of Some West Virginia Counties.

GREAT PROFITS IN FRUIT GROWING INDUSTRY.

[Special Correspondence Manufacturers Record.]

Romney, W. Va., August 11.

With expansive valleys containing rich agricultural lands, with mountainsides especially suited for fruit-growing, with extensive deposits of iron ore and limestone suitable for making open-hearth steel, and with a back-country containing virgin timber lands, the territory along the South Branch of the Potomac River in West Virginia in the counties of Hampshire, Hardy and Grant and Pendleton offers attractive inducements to the farmer, fruit grower and manufacturer.

These counties were settled prior to the Revolutionary War, belonging then to Lord Fairfax. George Washington in his

established several orchards, which proved to be remarkably successful. The success of this undertaking inspired others to similar efforts, so that there has been a gradual expansion in the fruit-growing industry, until today there are about 3,000,000 peach trees and 500,000 apple trees in Hampshire county, and 1,500,000 trees in Hardy and Grant counties. The result of this fruit-growing industry has been to greatly advance the agricultural prosperity of this section. The profits of the fruit-growing industry have been wisely used by the farmers to bring their lands up to a high state of productivity.

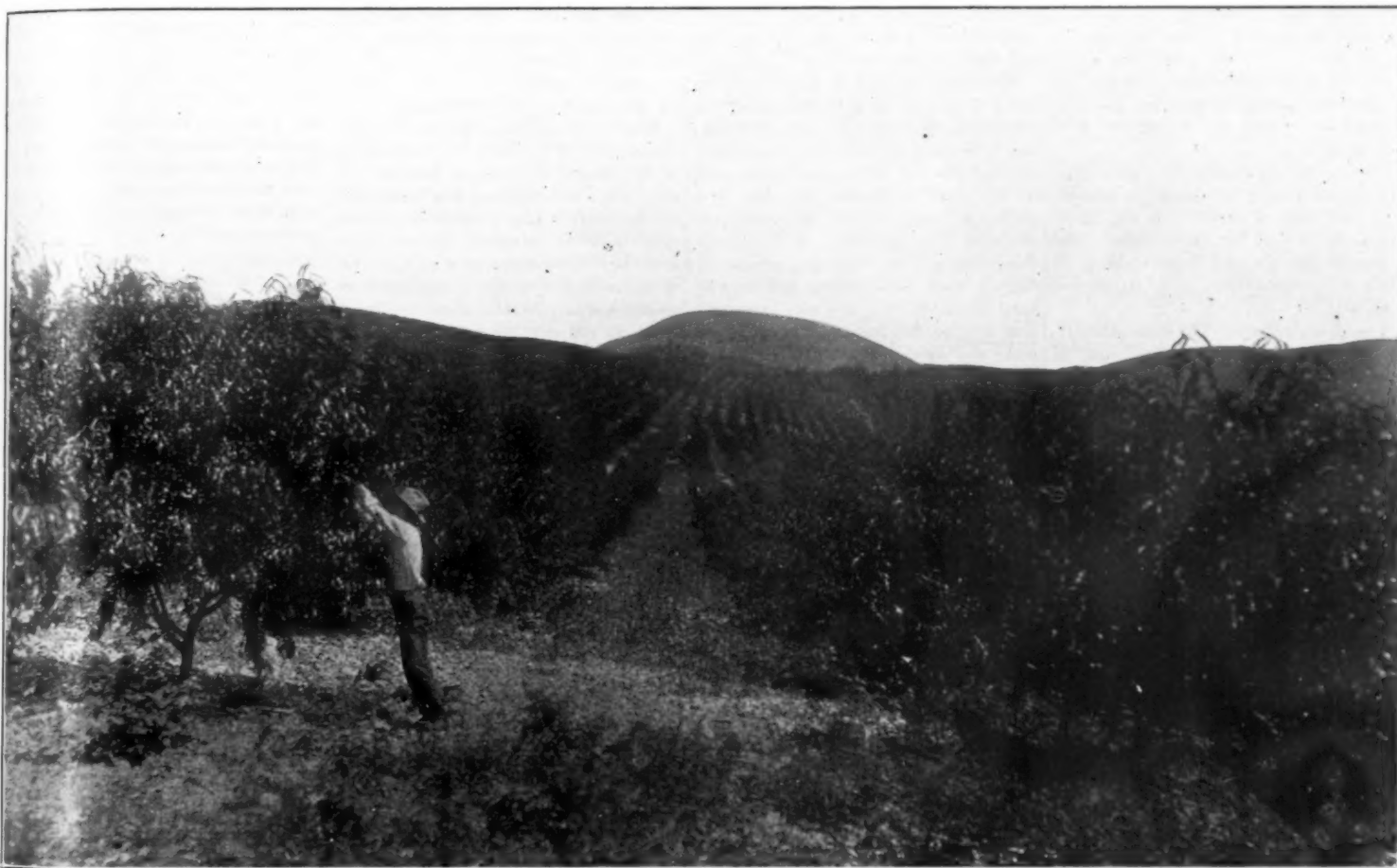
From a partial investigation made by

line of the Baltimore & Ohio Railroad, which extends from Green Spring, 15 miles east of Cumberland, to Romney, the county-seat of Hampshire county. In May, 1910, the Hampshire Southern Railroad, extending from Romney to Moorefield, the county-seat of Hardy county, and on to Petersburg, the county-seat of Grant county, was placed in operation, thus not only providing railroad facilities for these two additional counties, but also throwing them open for greater development. Pendleton county is still without any railroad facilities, but as it contains the same class of agricultural and fruit-growing lands, has practically the same topography, the same climatic and other features as the other counties, likewise a very large amount of virgin timber and iron ore, it cannot be long before the railroad must be extended into it also.

This section of West Virginia consists of a series of broad valleys connected together by narrow gorges. The Romney Valley, which is the first one entered, is

poses. The top surface of these lands are covered with disintegrated chert rock in sizes ranging up to three inches in diameter. This rock covers the surface to a depth of from four to six inches, while below is found an accumulation of humus which has been formed from the dead leaves of many years before. This not only causes the soil to be very rich and fertile, but when rains occur the water percolates through the rock and then through the humus, thus preventing any washing away and allowing the water to be gradually absorbed by the land.

Moreover, the altitude places these fruit-growing lands above the frost line, and provides good exposure and splendid air drainage, all of which combine to make this section an ideal fruit-growing one. Some of the orchards have been established on the top of the mountains for 13 years, and others have been there for a shorter period, but none have ever experienced a crop failure, which is one of the strongest recommendations of these lands



TYPICAL HAMPSHIRE COUNTY (W. VA.) PEACH ORCHARD, SHOWING TOP SURFACE OF DISINTEGRATED CHERT ROCK.

diary refers to a surveying trip he made in this section, and at that time remarked upon the expansiveness and richness of the valley lands in this territory. Since the settlement of this country from generation to generation the main pursuit has been agriculture, the staple crops of corn, wheat and hay being raised. Comparatively little attention was given to its other resources, perhaps due to a lack of knowledge concerning them.

Some years ago a few iron furnaces were operated, but with the development of the Bessemer process of steel manufacture these gradually declined until entirely discontinued. Students of the iron and steel industry realize, however, that eventually every section containing iron-ore lands must necessarily be developed, so that this section has stored away in its hills a great source of future wealth.

About 20 years ago some well-known orchardists, believing that the mountainsides in this territory afforded especially fine locations for the growing of fruits,

the State Geological Survey it is very conservatively estimated that there are 12,000 acres of virgin timber lands in Hampshire county, 64,500 acres in Hardy county, 57,000 acres in Grant county and 137,900 in Pendleton county. These estimates are, however, considered very low by men living in this part of the State who are familiar with the extent and scope of the standing timber. This extensive supply of virgin timber could be taken advantage of by many different kinds of woodworking plants, suitable locations for which are available at various points.

This section has grown to be quite an important cattle-raising one, too. Conditions are splendid for this, and the natural grasses are such that the cattle fatten quickly and keep in excellent condition even when shipped great distances. Consequently, they are in great demand for export.

Up to May, 1910, this section of West Virginia had been without railroad facilities with the exception of a 16-mile branch

about 16 miles long and one and one-half miles wide. After passing through a gorge six miles long at the lower end of this valley the Moorefield Valley in Hardy county is reached, this being about 16 miles long and two miles wide. From this another gorge leads to the Petersburg Valley, which is about nine miles long and one and one-half miles wide, and extending from this valley to the north is Luney's Creek Valley, which is about 10 miles long and one and one-half miles wide. These valleys are exceedingly fertile, and afford excellent farming lands, while the mountains on each side are dotted here and there with peach and apple orchards. When it was demonstrated that the mountain tops were especially well fitted for fruit growing, numerous companies were formed to plant orchards. The lands at the top of the mountains, were mostly cut-over timber lands, and were bought quite cheap, but it was necessary to remove all remaining timber and other growth and properly prepare the lands for fruit-growing pur-

for fruit growing, as it means regular crops and a dependable income.

When the first orchards were established in this territory they were conducted on a thorough business and scientific basis, and the example set has been followed by others in placing new orchards, so that the entire industry is being conducted along the best possible lines and is proving very profitable. Some idea of this may be had from the statement that one of the older companies on a capital stock of \$100,000 has paid not less than 40 per cent. dividends annually, and in one year paid dividends of over 120 per cent.

In conducting their enterprises the fruit growers have taken the fullest advantage of the scientific assistance extended them by both the National and State agricultural departments. The orchards are consequently not only laid out and conducted in the best manner possible, but in establishing a new orchard all trees brought in from outside nurseries as well as those raised by the nurseries in the State are

carefully examined by State officials to prevent any trees being planted that are affected in any way by disease. As a result of this careful supervision, and as there are no diseases among these orchards, it has not been found necessary to spray them in any way.

On account of the range of altitude a wider range of varieties and a longer picking and shipping season is also possible, so that instead of the peach season lasting only about a month, as in some sections, it extends over a period of two and one-half months, and different varieties are planted, so that peaches can be shipped regularly throughout this period. These orchards are well located in regard to some of the finest markets in the country, and on account of the quality and lusciousness of the fruit and the painstaking manner in which it is packed the growers are able to command the very highest prices. One of the most encouraging features of the marketing end of this industry is shown by the determination of the growers to create the best possible reputation for their fruit. Every package is carefully and honestly packed, and in each of them is placed a card setting forth the manner in which the fruit is grown and harvested and the request that should the user find any of it unsatisfactory that he communicate with the grower.

While many of the individual growers in Hampshire county have orchards containing from 1000 to 10,000 trees, the larger orchards are owned by corporations. These concerns are planting large orchards of 10,000 to 50,000 trees, both apples and peaches.

As an illustration: The Hampshire Orchard Co. owns more than 1000 acres of this mountain land, and has planted 50,000 peach and 10,000 apple trees. Three hundred acres of the peaches are bearing this year, the fruit being large and of fine flavor. The first variety, the Carman, is just going to market at this time. The carriers are selling in the Washington, Baltimore and New York markets for from \$3.25 to \$3.75 each. The officers of this company are W. B. Cornwell, president, Romney; John J. Cornwell, treasurer, Romney; John L. Lehman, secretary, Fairmont.

The Romney-Mountain Orchard Co., with an orchard opposite Romney, has 45,000 peaches and 6500 apples. The stock is owned largely by the same people interested in the Hampshire orchard, and is a similar proposition in every particular with the same chert soil. Both of these orchards are managed by H. C. Inskeep. John J. Cornwell is president of the latter company.

The Twin Mountain Orchard Co., the stock of which is held by Fairmont and Marion county people, has 1200 acres, covering the corners of the four counties of Hampshire, Hardy, Grant and Mineral, with a capital of \$125,000. It already has 400 acres planted, and proposes to plant at least 1000 acres. This proposition, too, is hewed out of the forest on the mountains. Much of the timber where this orchard is located is locust, and the company has installed a pin plant and is manufacturing the locust into pins. They are now preparing to construct a narrow-gauge railroad of more than 12 miles in length to reach their property.

The Marshall-Morton Lumber Co., which owns more than 6000 acres of valuable timber in Hardy county, on the west side of the South Branch, and is beginning the operation of it, has sold the land on which the timber stands to a New Jersey corporation which proposes to plant the land in fruit as fast as the timber is removed.

Among other fruit companies in Hampshire are the Little Capon Orchard Co.,

the Golden Orchard Co., the Mill Mountain Orchard Co. and the Wappacoma Orchard Co., the stock of which is held almost entirely by citizens of the community where the properties are located.

More than half a dozen fruit corporations other than those mentioned have been organized in Grant and Hardy counties since the construction of the railroad into those counties, and are setting out orchards ranging in size from 100 to 300 acres.

Perhaps what is destined to be one of the most important resources of Eastern West Virginia is that of its iron-ore deposits. From partial investigations made by the West Virginia Geological Survey it has been conservatively stated that the tonnage of iron-ore deposits in Hardy, Hampshire and Pendleton counties will exceed 100,000,000 tons, and that the average analysis of these ores show an iron content of from 42 to 45 per cent.

Throughout these counties are also found an abundance of limestone, while the finest coal fields in the country are but a short distance away. Consequently, it is seen that this section contains all of the necessary raw materials required in iron and steel manufacture.

When the tremendous growth of the iron and steel industry in this country is considered, there must be a steady expansion of the iron and steel-producing capacity, and the time is bound to come when there will be established iron and steel plants in every section containing the necessary raw materials. So that while these counties are becoming prosperous through their fruit-growing and agricultural resources, they will still have these iron ores to fall back upon, which will make this section a veritable beehive of industry in future years.

This section is, comparatively speaking, but sparsely settled, and it offers, therefore, unusual inducements to farmers, fruit

growers and manufacturers. Not only is its location a particularly fine one, but it is also in close proximity to some of the best consuming markets in the country. This always insures ample demand at good prices for all products raised. Excellent railroad facilities also provide quick service to these markets.

Realizing the advantages possessed by this country, the leading men in Hampshire, Hardy and Grant counties have formed the South Branch Board of Trade, the sole purpose of which is to familiarize prospective settlers with the attractive opportunities offered. Newcomers will find here a splendid substantial lot of people. For the most part they are all descendants of those originally located in these valleys, and there has been no influx of immigrants. That they are people of refinement and high character is evidenced by their homes and surroundings. Many of these homes have descended from generation to generation, and although most of them heretofore were located far back in the country and away from railroads, they present an appearance that for attractiveness and progressiveness is in keeping with the prosperous farming sections of other parts of the country which have always enjoyed the advantages brought by railroads.

Perhaps the greatest influence in the development of this country was the building of the Hampshire Southern Railroad, because when one considers that formerly it was necessary to haul products many miles to an outlet to consuming markets, while now the railroad passes through the heart of this section, it needs no imagination to predict a steady increase along this line.

No one can visit these counties without becoming enthusiastic about their topography and possibilities; in fact, it was due to the visit of a well-known banking official of New York city that led to the building of the Hampshire Southern Railroad.

He came through this country, easily recognized its many advantages and the effect which the building of the railroad would have upon its expansion. Through his assistance the necessary money was raised and the road constructed. That his foresight was in every way justified is evidenced by the spirit of progressiveness pervading the whole community and the remarkable advancement of this section since the completion of the railroad. The Hampshire Southern connects up Romney, the county-seat of Hampshire county; Moorefield, the county-seat of Hardy county, and Petersburg, the county-seat of Grant county.

The South Branch Board of Trade has just completed an illustrated booklet entitled "The Land Overlooked," the very title telling the story of a rich region hitherto out of touch with the development of the day. Mr. John J. Cornwell, president of the South Branch Board of Trade, Romney, W. Va., is one of the moving spirits in this region, and those who would seek information about fruit growing or other pursuits can write him for detailed facts and figures.

The Baltimore & Ohio Railroad is also deeply interested in the development of this whole territory, as all of it feeds directly to its main line, and through its industrial department it will gladly supply any information desired and co-operate with those seeking to become identified with this section.

WM. H. STONE.

A dispatch from St. Louis says that the Streckfus steamboat line will start a boat in the St. Louis and New Orleans trade September 15, and that if enough encouragement is received by the enterprise another steamer will soon be placed on the route.



A "BEEHIVE" INDUSTRIAL BUILDING.

A reinforced concrete building, now under construction at Pratt and Concord streets, Baltimore, as shown in the accompanying illustration, will be occupied when completed by manufacturing plants which will be supplied with all requirements of power, light, heat, railroad facilities, etc., by the management of the building. About 150,000 square feet of floor space will be available for manufacturing purposes. Arthur Tufts of Baltimore, constructing engineer, designed the building and has the contract for its construction. Wm. Martien & Co. are the agents. The cost will be \$300,000, while the equipment for power, light and heat will amount to \$60,000. The power plant will consist of Babcock & Wilcox boilers, Nagle engines, Fort Wayne electric generators, etc. The Automatic Sprinkling Co. of America's sprinkling system will be installed through the Baltimore agent. Several Otis elevators, both freight and passenger, will be installed. Sand and gravel are furnished by Arundel Sand & Gravel Co. of Baltimore. The shipping facilities will be good for both land and water transportation. The Baltimore & Ohio Railroad will have a siding laid into the building, so that its cars may be loaded and unloaded at the freight platform. The building will be eight stories and basement, fireproof, with heavy concrete floors well adapted for installing and operating machinery. The electric wiring installation will be by the constructing engineer's force, but the contracts for plumbing and heating are yet to be awarded.

A \$1000 BARREL OF CEMENT.**The Tidewater Portland Cement Plant Begins Operation.**

The extensive plant of the Tidewater Portland Cement Co. at Union Bridge, Md., was opened last Tuesday. The machinery was started by Governor John K. Tener of Pennsylvania, president of the company, who opened the throttle, admitting steam to the engines which operate the immense electric generators supplying power to the entire plant. A salvo of explosions from the blasting operations in the quarries nearby, together with the sudden starting of the machinery throughout the plant, made an impressive ceremony, witnessed by a large party of New York, Massachusetts, Pennsylvania and Maryland capitalists and users of cement products.

The operation of grinding and mixing the stone, shale, etc., for cement production began at once, and before the first barrel had been completely manufactured it was sold at auction after spirited bidding to one of the members of the party, O. E. Foster of Buffalo, for \$1000.

The machinery and construction of the plant are up to date, and it is believed by the officers of the company that a high quality of cement at economical cost will result from the use of the improved machinery and utilization of waste products for which this plant especially provides.

The rock is a white stone, 98 per cent. calcium, and by using it with white clay a white cement will be produced, as well as the gray cement made from this stone and the shale which is found in abundance near the stone quarry.

The hydrated lime plant of the Tidewater Company has been in operation for one and one-half years, and has established an organization and trade that will aid in the immediate introduction of the cement products. The entire plant now comprises 31 buildings, grounds covering 300 acres including the quarries, three miles of standard-gauge railroad and its own rolling stock for this trackage to connect with the Western Maryland Railroad Co.'s main line.

The capacity of the cement plant is over 1,000,000 barrels per annum and that of the hydrated lime plant 22,500 tons. The plant is built in units so that its capacity can be increased by installation of additional machinery without increasing the present buildings. Six hundred men are employed. The transportation facilities are good, as the plant is but 45 miles from Baltimore, which is the main distributing point and from which cargo lots in vessels can also be shipped from the Western Maryland terminal piers.

Southern City Factories.

The increases in the industrial activities in a number of cities in the South between 1904 and 1909 included the following:

Little Rock, Ark.—Capital invested in factories, from \$4,493,000 to \$6,045,000, or 35 per cent.; value of products, from \$4,690,000 to \$6,882,000, or 47 per cent.; average number of wage-earners, from 1971 to 2017, or 2 per cent.

Fort Smith, Ark.—Capital, from \$1,726,000 to \$3,206,000, or 86 per cent.; products, from \$2,329,000 to \$3,739,000, or 61 per cent.; wage-earners, from 1049 to 1455.

Hot Springs, Ark.—Capital, from \$349,000 to \$770,000, or 40 per cent.; products, from \$597,000 to \$845,000, or 42 per cent.; wage-earners, from 239 to 335, or 40 per cent.

In Argenta, Ark., which was included in Little Rock in 1905, the capital in 1909 was \$2,240,000, the products \$4,842,000 and the number of wage-earners 2157.

Norfolk, Va.—Capital, from \$4,374,000

to \$10,744,000, or 146 per cent.; value of products, from \$5,739,000 to \$10,341,000, or 80 per cent.; wage-earners, from 2935 to 4749, or 62 per cent.

Petersburg, Va.—Capital, from \$4,562,000 to \$5,221,000, or 14 per cent.; products, from \$5,891,000 to \$8,896,000, or 51 per cent.; wage-earners, from 3288 to 3887, or 18 per cent.

Portsmouth, Va.—Capital, from \$504,000 to \$2,233,000, or 119 per cent.; products, from \$945,000 to \$1,528,000, or 62 per cent.; wage-earners, from 551 to 842, or 53 per cent.

Danville, Va.—Capital, from \$5,119,000 to \$6,059,000, or 18 per cent.; products, from \$4,775,000 to \$5,389,000, or 13 per cent.; wage-earners, from 3018 to 3076, or 2 per cent.

Lynchburg, Va.—Capital, from \$4,258,000 to \$9,217,000, or 116 per cent.; products, from \$4,965,000 to \$10,188,000, or 105 per cent.; wage-earners, from 2534 to 4026, or 59 per cent.

Alexandria, Va.—Capital, from \$2,328,000 to \$4,687,000, or 101 per cent.; products, from \$2,187,000 to \$4,420,000, or 102 per cent.; wage-earners, from 1291 to 1470, or 14 per cent.

To Drain 22,000 Acres.

An Arkansas drainage proposition is outlined in a letter to the MANUFACTURERS RECORD from W. C. Hudson of the Bank of Pine Bluff. About 22,000 acres will be drained by a canal $8\frac{1}{2}$ miles long, to be constructed at a cost of \$33,000, and Messrs. White & Watson of Pine Bluff are the engineers in charge. The drainage commission is composed of W. L. Davis, president, Wabosseka, Ark.; R. Sondheim, treasurer, Memphis, Tenn.; W. C. Hudson, secretary, Pine Bluff.

A Tennessee Colony Plan.

Mr. Rutledge Smith, industrial agent of the Tennessee Central Railroad Co., is authority for the statement that the Welfare Company, capitalized at \$1,500,000 and with offices at Chicago, has purchased at Mayland, Cumberland county, Tennessee, a tract of 10,000 acres of land upon which will be established a colony as an ideal Masonic community. Mr. Hugh C. Smith, 68 W. Washington street, Chicago, is president and R. G. Moscrip of the same address is the engineer in charge of the undertaking.

Southern Car Co. Improvements.

Referring to the improvements recently in progress at its plant, the Southern Car Co. of High Point, N. C., writes to the MANUFACTURERS RECORD as follows:

"We have entirely remodeled our plant. We have spent about \$20,000 on remodeling the old buildings, have installed approximately \$20,000 worth of new machinery and are spending \$15,000 on other improvements, such as fire protection, sewerage, lighting of plant and transfer table."

A \$1,200,000 Company Chartered.

The Elliott Splint Coal Co. has been incorporated with \$1,200,000 capital stock to develop coal properties in Kanawha and Clay counties, West Virginia. Its incorporators are W. B. Whiting, M. A. Hinchellwood, Ellis R. Diehm, C. C. Owens and H. J. Crawford, all of Cleveland, O. Mr. Whiting wires to the MANUFACTURERS RECORD: "Not ready to give any information."

The Texarkana (Ark.) Gas & Electric Co., according to a dispatch from Little Rock, has filed notice of increase of capital from \$100,000 to \$500,000.

WHAT IS YOUR TOWN DOING?

The MANUFACTURERS RECORD will be glad to receive brief items of news about business conditions, opportunities for industrial enterprises and the projected establishment of enterprises in every town in the South. It seeks information of this kind from commercial and industrial organizations and from municipal authorities in every town and city of the South. This information is desired for publication without cost of any kind to the sender, and regardless of whether he is a subscriber or not. The MANUFACTURERS RECORD accepts no paid matter in its reading pages. This department is open only to news facts of interest to investors, homeseekers and manufacturers. Correspondents are requested to give their facts in as condensed form as possible, preferably not over 200 to 250 words. Lengthy letters cannot be published.

JACKSON'S BOND ISSUE.

Merchants' Association,

Jackson, Tenn., August 12.

Editor Manufacturers Record:

One of the most important elections ever held in Jackson, looking to the furtherance of the commercial cause of our city, took place July 25. The proposition of voting bonds to the amount of \$100,000 as subscription stock to the New Orleans, Mobile & Chicago Railroad to secure the extension of said railroad company from Middleton, Tenn., to Jackson, Tenn., was the provocation of election at issue. The requisite majority was three-fourths of the vote cast. However, a canvass of the returns showed the proposition had carried by a majority of about 7 to 1, which clearly demonstrates the vast importance and benefits the extension of this railroad will be to our city. Among other things it will mean another great trunk line for Jackson. When completed Jackson will rank second to none as a railroad center in Tennessee, or, in other words, a close second to Memphis for that honor and asset.

It is an undisputed fact that the extension of road in question will open up to the manufacturers of Jackson one of the greatest timber districts in the South, if not in the United States.

It is assured that actual construction of the extension of the New Orleans, Mobile & Chicago Railroad will begin at once, and reliably rumored that the contracts let will specify that the work must be finished and trains running into Jackson by June 1, 1912.

The Northwestern & Dyersburg road, now under construction, will be completed from Jackson to Dyersburg by the first of November next, and will open up one of the richest agricultural countries in the South, together with a virgin forest of valuable timber heretofore undisturbed.

We are receiving daily many inquiries from individuals and all kinds of industries seeking locations. Why? For the simple and sane reason that they see the "handwriting on the wall" and know that Jackson is destined to be a garden spot of the South.

Jackson possesses so many attractions that appeal to homeseekers that it would tax my ability to describe the fractional part of its many resources.

W. P. MOORE, Secretary.

TALL HOUSTON BUILDINGS.

Chamber of Commerce,

Houston, Tex., August 10.

Editor Manufacturers Record:

By October four new skyscrapers, ranging in height from 8 to 12 stories, will have been opened in Houston, together with several other structures of from one to six stories. The taller buildings to be opened will represent investments in excess of \$3,000,000. Included in the structures of less height is the new Federal building, erected at a cost of \$500,000.

In three of the office buildings there will be approximately 1000 rooms, capable of accommodating from one to a dozen persons. Principal among these buildings are the new Union National Bank of 12 stories and the Southern Pacific general office building of nine stories. Each of

these buildings cost \$500,000. The third tall building is the New Bender Hotel of 10 stories, costing nearly \$400,000. Recently a contract was closed by the owners of the Bender Hotel with Byron Swearington, a hotel man of San Antonio, for the lease for 10 years of the building. The lessee will furnish the building at a cost of \$100,000, a Houston furniture firm securing the contract for the furnishings. This hotel probably will be opened by September 30.

Another of the taller buildings to be opened soon is the new exchange of the Southwestern Telegraph & Telephone Co. This building is seven stories in height. About the same time the new Beaconsfield apartments of seven stories in the South End will be opened.

Other principal buildings in the course of erection are the Milby Hotel of six stories; Fields Hotel, three stories; Automatic Telephone Exchange, Settegast Hotel, four stories; Galveston-Houston Electric Co., interurban car barns, the Rice Institute and the Brown Candy Co. warehouse. Surveys are being made for the new \$1,500,000 hotel of 18 stories to be built on the Rice Hotel site, construction work beginning October 1.

JEROME H. FARHAR.

CLARKSBURG'S NATURAL GAS.

Board of Trade,

Clarksburg, W. Va., August 14.

Editor Manufacturers Record:

I have only recently taken charge of Board of Trade work here, and one of my first attempts was to bring together a representative body of the business and professional element of Clarksburg in a "smoker." The meeting was an unqualified success, and augurs well for the future, the feeling engendered being indicative of a desire to back up the Board of Trade both morally and financially. We are now engaged in enlarging our membership and in securing funds for the thorough exploitation of this territory.

Since being on the ground I have learned much, and from personal observation I am amazed at the potential opportunities existing in this district for future development. The fact alone that this vicinity is in the center of one of the greatest gas-producing districts in the world, making possible for manufacturing purposes cheap fuel proposition, makes me but feel that it is only a question of time, following a persistent campaign for publicity concerning its advantages, before this section of the country will come into its own. With cheap power, excellent transportation facilities and many raw materials at her doors, Clarksburg unquestionably has a brilliant future.

H. V. D. KING, Secretary.

TEXARKANA'S OUTLOOK.

Board of Trade,

Texarkana, Ark.-Tex., August 11.

Editor Manufacturers Record:

The report of the growth and improvements in Texarkana during the fiscal year ended June 30, 1911, is a source of much gratification. I am sure, to everybody concerned with the welfare of our city. New factories, municipal improvements and completed represent \$2,750,000; enter-

prises under construction, \$835,000; expenditures contemplated, \$1,700,000.

In a general way the city has grown in population, in amount of business done and in every other way at a rate even better than in the past. Through the efforts of the Board of Trade the city has been widely advertised in all sections of our great country, and has reaped therefrom advantages difficult to estimate in figures.

Churches, schools and good streets and roads have been given more than usual attention. Three conventions were secured to be held during the present year.

V. E. BURN, Secretary.

MINERALS NEAR BOWIE.

Chamber of Commerce,

Bowie, Tex., August 9.

Editor Manufacturers Record:

A farmer living within two miles of Bowie has just discovered on his place a vein of pyrites of iron. It is very rich, and the Chamber of Commerce has had an assay made by G. S. Fraps, State chemist, which gives it a high commercial value. The vein is in a cliff and is visible five feet above the surrounding level. It is over 40 feet in width, and the length of the vein is hard to estimate, as it runs back into a cliff, and can only be tested by digging back. This vicinity seems to be rich in minerals, as less than two weeks ago large beds of glass sand were discovered, which the Chamber of Commerce had Prof. John J. Porter of the Cincinnati University to pass upon, and he declared the sand to be of good commercial value, as it would make glass bottles, window panes and other glassware. This bed of sand extends over four acres of ground, and has an average thickness of over 12 feet. The Chamber of Commerce is trying to get Northern capitalists interested in this proposition.

GEO. H. HARRIS, Secretary.

ROCK HILL'S SURROUNDINGS.

Chamber of Commerce,

Rock Hill, S. C., August 4.

Editor Manufacturers Record:

South Carolinians are proud of the growth of manufacturing industries within the limits of their State, and while Rock Hill is surely one of the most successful cities in the State, in this, as in other lines of work, it must be known that the most valuable asset of any trading center is a large area of farm lands which can be cultivated with profit. What are the conditions which exist around Rock Hill?

Near Rock Hill are three distinct varieties of soil. Directly east, west and north of Rock Hill we find what is known as Cecil clay. This is rolling, well drained. Southeast of Rock Hill is found the Cecil sandy loam. In productiveness this is equal to any soil in the county, while it is much easier to cultivate, warms up enough to justify cultivation early in the spring, and responds well to careful treatment. This section is level, and washing gives little trouble. South of Rock Hill is the Iredell clay loam, locally known as black-jack land. This soil is dark, level, and needs some drainage, which can be easily afforded. For a long time this land was considered as worth very little, but this was another instance where a diamond mine was hidden. As soon as planters began to study the needs of their soil and to choose that fertilizer that suited best, this land became very valuable. The use of fertilizer with some form of potash has increased the value of these lands more than that of any other section of the county. In 1910 from 87 acres of this soil there was grown 115 bales of cotton, averaging 500 pounds to the bale, which sold for 15 cents per pound. This tract is owned by Mr. Burton Massey of Rock Hill, S. C.

The lands around Rock Hill lie well. While there is good drainage, the relief of the section is not much broken, and it

would be hard to find a tract of large area which "lies out." These lands, too, respond well to scientific farming, and repay richly with thoughtful and careful treatment. The result is seen in the farms around Rock Hill, many of which are regarded so attractive that visitors are carried out to see them. Notable farms are those of Messrs. J. M. Cherry, W. C. Whitner, W. C. Bigger and the State farm, owned by Winthrop College.

With a good soil, Rock Hill enjoys a fine climate. In the past 10 years the temperature at Rock Hill has not gone to zero. The average temperature for the year is 62 degrees.

The rainfall is ample for any growing crops. For the year the Rock Hill average is 46½ inches. This is favorably distributed, the driest months being October, November and December; these three months average three inches each, while the monthly average is nearly four inches. This gives the least rain during the season when crops are being gathered. The length of the growing season depends on the date of the last "killing frost" in the spring and the first in the fall. Average season gives growing days in March and November, giving seven full months and more in which the earth yields its bounties.

The natural advantages for farming around Rock Hill are great, and to the credit of those who live there be it said these opportunities are realized and enjoyed. The future is full of promise to the industrious tiller of the soil.

Climate, soil and shipping facilities are ideal for yielding large returns from diversified and intensive farming.

W. S. CREIGHTON, Secretary.

BUILDING AT GREENSBORO.

Chamber of Commerce,

Greensboro, N. C., August 11.

Editor Manufacturers Record:

Dr. C. W. Banner of our city will erect a six-story office building on the main street. The Y. M. C. A. building is nearing completion. The city high-school building, which is one of the most complete and up-to-date school buildings in the State, has been turned over to the authorities by the contractors, and the Hufline Hotel people are completing an addition to the hotel, the addition being three stories, containing about 50 rooms. Quite a good deal of building is in progress in Greensboro. The committee in charge of the Greensboro-Roxboro Railroad movement is making good progress. This road will go to Roxboro, Oxford and Henderson, connecting with the Norfolk & Western at Roxboro and the Seaboard at Henderson. The local street-car people are extending tracks north and west from the city.

C. C. McLEAN, Secretary.

FOR A SEWERAGE SYSTEM.

Commercial Club,

Chase City, Va., August 11.

Editor Manufacturers Record:

Will you please advise me if you know of any person or any corporation who would be interested in taking hold of a proposition for the system of water and sewerage for this town. The town would gladly welcome anyone who will come here and install the system on his own responsibility and would give a liberal franchise. We have a population of something near 2000, and the appraised valuation of the personal property of the town is about \$600,000. R. D. PATTERSON, President.

Detailed information about towns seeking manufacturing enterprises and offering specific advantages for development and business opportunities can be found under the head of "Classified Opportunities" on pages 80, 81, 82, and under "Cities, Towns and Railroads Inviting Factories" on 108, 109, 110 and 111.

GOOD ROADS

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department.]

Bonds Voted.

Bay St. Louis, Miss.—City will issue \$50,000 of bonds to protect streets from overflow.

Beaumont, Tex.—City voted \$25,000 of bonds for paving.

Carthage, Tenn.—Smith county voted \$30,000 bond issue for road improvements.

Chickasha, Okla.—Grady county authorized \$40,000 bond issue for road construction.

Cold Spring, Tex.—San Jacinto county voted \$10,500 of bonds for road construction.

De Funiak Springs, Fla.—Walton county voted \$70,000 bond issue for road construction.

Granger, Tex.—City voted \$15,000 for street improvements.

Jonesboro, Tenn.—Washington county voted \$60,000 bond issue for Bristol-to-Memphis highway.

Marquez, Tex.—Justice Precinct No. 7 of Leon county voted \$30,000 bond issue for road construction.

Palmetto, Fla.—City voted \$20,000 for paving and water-works.

Scottsboro, Ala.—Jackson county voted \$30,000 bond issue for road construction and improvements.

Talcott, W. Va.—Talcott district of Summers county voted \$35,000 bond issue for roads and bridges.

Winston-Salem, N. C.—City voted \$75,000 bond issue for street improvements.

Bonds to Be Voted.

Bartow, Fla.—Polk county votes October 10 on \$500,000 bond issue to construct 278 miles of road.

Fayetteville, N. C.—Cumberland county votes November 14 on \$200,000 bond issue for road construction.

Fernandina, Fla.—Districts Nos. 1, 2 and 3 of Nassau county vote September 12 on \$60,000 bond issue to construct road and bridge.

Greensboro, Ga.—Green county will vote in October on bond issue for road construction.

Marlin, Tex.—Precinct No. 1 of Falls county contemplates issuing \$25,000 of bonds for roads.

New Iberia, La.—City contemplates bond issue for street improvements.

Spottsylvania, Va.—Berkley district contemplates voting on \$30,000 bond issue to improve 26 miles of road.

Tampa, Fla.—City contemplates voting on \$700,000 bond issue for paving.

Tilden, Tex.—McCullen county votes September 2 on \$25,000 bond issue to construct roads.

Tulsa, Okla.—Tulsa county votes September 19 on \$500,000 bond issue for road construction.

Contracts Awarded.

Attalla, Ala.—City awarded contract for sidewalks.

Birmingham, Ala.—City awarded contract to construct paving.

Brookhaven, Miss.—District No. 1, Lincoln county, awarded contract to grade and gravel 28 miles of road and construct bridges and culverts.

Hammond, La.—City awarded contract to construct 6½ miles of concrete sidewalk.

Henderson, Ky.—City awarded contract to construct five miles of curb, gutter and sidewalks.

Lexington, Ky.—City awarded contract for about 23,000 square yards of paving.

Longview, Tex.—City awarded contract at about \$60,000 to construct 17,000 square yards of paving.

Mansfield, La.—City awarded contract to construct four miles of concrete sidewalk.

Maryville, Tenn.—Blount County Commissioners awarded contracts amounting to \$320,000 for road improvements.

Newbern, N. C.—City awarded contract for paving.

Ronceverte, W. Va.—City awarded contract for paving.

Seabreeze, Fla.—City awarded contract to shell street.

Contracts to Be Awarded.

Aberdeen, Miss.—Road Commissioners District No. 4 invite bids until September 5 for grading and drainage, constructing culverts, lay tiling, etc.

Aiken, S. C.—City receives bids until August 31 to construct about 73,000 square yards of street paving.

Bastrop, Tex.—City will macadamize three main streets.

Benton, Ark.—City will construct six miles of sidewalks.

Bennington, Okla.—Town will construct sidewalks.

Brunswick, Md.—City contemplates construction of 14,000 square yards of paving.

Buchanan, Va.—City will macadamize portion of Main street.

Fayetteville, W. Va.—City will construct sidewalks.

Franklin, La.—City will construct about 97,000 square feet of paving and 48,000 feet of curbing.

Helena, Ark.—City will advertise late in August for bids to construct paving.

Jacksonville, Fla.—City opens bids September 5 to construct 23,268 square yards of paving.

Johnson City, Tenn.—City will construct about 23,000 square yards of paving.

Leesburg, Ga.—Lee county contemplates road construction.

Marianna, Fla.—Jackson county will construct sand-clay and hard-surface roads.

Newton, N. C.—Catawba County Commissioners appropriated \$50 per mile for central highway.

New Albany, Miss.—Road Commissioners first, second and third districts of Union county invite bids to construct and maintain 150 miles of road.

Russellville, Ky.—Logan county will construct highway through county.

Rutledge, Tenn.—Grainger county will grade 15 miles of road.

San Antonio, Tex.—Bexar County Highway League proposes to construct road from San Antonio to Gulf of Mexico.

Somerville, Tenn.—Fayette county contemplates construction of road from Somerville to Memphis.

Taylorsville, N. C.—Taylorsville and Ellendale townships will construct three miles of roads.

Tazewell, Va.—Tazewell county will construct 35 miles of macadam roads.

Tuscumbia, Ala.—City will construct sidewalks.

Bristol to Washington.

Bristol-to-Washington Highway Association,
Bristol, Va., August 14.

Editor Manufacturers Record:

A movement of far-reaching significance was the organization in this city Friday, the 11th, of the Bristol-to-Washington Highway Association. At this meeting were representatives of various sections of Virginia, and the utmost confidence

prevailed that the dream for almost a century of a great national highway connecting Washington with the Mississippi River is soon to be realized. Tennessee has already accomplished her purpose of connecting up the broken links in officially determining the route of a military and post road stretching from the city hall in Bristol, the metropolis on the border in the extreme northeast portion of the State, to the steps of the million-dollar structure which houses the city government of Memphis, the metropolis in the southwest corner of Tennessee and sitting upon the bluffs overlooking the mighty Father of Waters. Virginia proposes to take this road from Bristol and carry it on to Washington, completing a highway fully 1000 miles in length, the longest connecting road in the United States at the time of its completion unless it be that the great scheme of the capital-to-capital road reaches its climax by dedication.

The meeting Friday in this city resulted in formal organization and the election of officers as follows: W. H. Aston, Meadowview, president; J. M. Marsteller, Roanoke, vice-president; M. B. Corse, Lexington, vice-president, and F. M. Runnels, Bristol, secretary-treasurer. The association adopted no binding obligations, and only in a general way has it entered upon this undertaking. The committee on organization recommended that there be one executive committeeman from each county directly influenced along routes to be proposed, and that this committee, with the officers, be the legislative body of the association. At least 30 Virginia counties will be affected, and as soon as this committee can be named by President Aston they will be called together in meeting, when the working arrangements of the association will be adopted. Under the plan of agreement this final organization and perfection of machinery must take place within 60 days. But President Aston will not wait that length of time before starting the publicity work.

The secretary is already endeavoring to arrange an automobile trip, the party to occupy not less than five cars, to start from Bristol some time between September 1 and 10, leaving Bristol and traveling to Washington on roads paralleling the Norfolk & Western Railway to Roanoke; thence up the Shenandoah to some point nearly opposite Washington, and across the range of hills into the National Capital. Returning, the course will be almost directly south to Lynchburg, and from that city west to Roanoke, unless it is later determined to include Richmond in the trip. Prominent newspaper men representing Washington and Virginia papers will be invited to take the trip as guests of the Bristol-to-Washington Highway Association, and it is hoped to have in the party Hon. P. St. J. Wilson, Commissioner of Highways for Virginia, and Hon. Geo. W. Koiner, Agriculture Commissioner. Mr. James Shelby Thomas, Commissioner of Education of the Southern Commercial Congress, has accepted an invitation to be a member of this party, and Mr. O. L. Omohundro of Nashville, who was actively associated with the Bristol-to-Memphis Highway Commission, has kindly advised the secretary that he will join the party. In addition, it is desired to have a representative of the Agriculture Department at Washington and others who are experienced in road construction.

The Bristol meeting brought out a large number of practical addresses on the subject of good roads, among them being speeches by J. H. McCue, general manager of the Virginia & Southwestern Railway; J. H. Marsteller, a member of the American Highway Association and of the Southern Appalachian Good Roads Association;

O. D. Oakey of Salem, Va., well known throughout Virginia and Tennessee for his activity in highway building, and Hon. P. St. J. Wilson of Richmond. Others who pledged the association their most active work were C. H. Butt of Norfolk; T. R. Boon, member of the City Council of Salem; J. T. S. Hoge of Giles county, Virginia, and Ro. L. Gardner of Pulaski. F. M. RUNNELS, Sec.-Treas.

San Antonio to Gulf.

Publicity League,

San Antonio, Tex., August 14.

Editor Manufacturers Record:

For some time, through the efforts of the Chamber of Commerce of this city, the San Antonio-to-the-Gulf Auto Way has been under consideration. Recently the Real Estate Exchange gave attention to the matter, and out of the agitation came the concerted movement for the road, and now it is assured that the road will be built.

The Publicity League has employed a competent engineer, and the effort is taking form that insures the early completion of the road. It is proposed to build from this city through Bexar, Wilson, Karnes, Bee and San Patricio counties to Corpus Christi. At a point about 10 miles from Corpus Christi the road will connect with the Gulf Coast road, now building, which when completed will extend from Galveston to Brownsville. A number of the counties through which the road will pass have already voted large sums in bonds for the purpose of building roads, and it is understood that a part of this will be used in building the auto way.

In Wilson county it is proposed to have a line built from the main line to Sutherland Springs, noted for its many flows of mineral waters, and thence to Floresville, where it will join the main line of the San Antonio-to-the-Gulf road, thus forming a loop about 75 miles in length which can be utilized by tourists and those prospecting for business purposes who come to this part of Texas for both health and business when the North is ice-locked.

In San Patricio county it is proposed to build the road of shells, making it similar to the famous auto ways which have been built out of New Orleans, and that stretch of splendid road between Galveston and Houston. While it has not been definitely settled, it is understood the league will use different kinds of road material in an effort to ascertain which is the best.

In San Patricio county it is estimated that \$600 per mile will complete the work. This is about all per mile that will be required in Bexar. But in Wilson, Karnes and Bee counties the estimate is \$1800 per mile. In Bexar county much work had been done on the road and long stretches on the proposed route had been macadamized and put in a very nice condition by the County Commissioners before the San Antonio-to-the-Gulf road was agitated.

Since the movement was started to build this stretch of road the wide-awake citizens of Laredo are making an effort to have a road completed from the Mexican border to this city. La Salle county, through the effort of a live, wide-awake county board, has completed the part of this auto way in that county.

With the agitation now on, the day is not far distant when Texas will have one of the longest auto roads in the world, the line extending from the Gulf coast into the Red River country, and may ultimately become a link in a proposed road from the Gulf to Colorado and on to the Canadian line.

That the business men of this city are in earnest about the building of the San Antonio and Gulf line is emphasized by

large donations of cash and the formation of an organization with the completion of the road as its object. In the matter of permanent roadbuilding this league is by far the greatest thing of the kind in the State.

TOM M. MORGAN,

Assistant Secretary.

Bearing upon the same matter, W. S. Hawkins, consulting engineer of the Bexar County Highway League, San Antonio, Tex., writes to the MANUFACTURERS RECORD:

"The Bexar County Highway League was organized July 28 and incorporated under the laws of Texas. Alexander Boynton is president; G. A. C. Halff, treasurer; Ray Mackey, secretary, and W. S. Hawkins, consulting engineer.

"The purposes of the league are to try to get the counties between here and the coast to issue bonds for the construction of an improved highway and the work be done under the supervision of our engineering department, in order that we might have uniform construction.

"Several substantial subscriptions received, but none of this money will be used in actual construction, but only for the purpose of maintaining the office in San Antonio and to assist the counties in conducting a good live bond issue campaign. Two counties already have placed their bonds."

Mississippi Roads.

W. G. Bias of New Albany, Miss., referring to the interest aroused throughout that section in the building of good roads, says:

"Our road material is sand-clay, our soil naturally, as we are advised, being peculiarly well adapted to that construction; have no stone or gravel available; earth construction entirely. Under the law referred to our levy of taxes is limited to 10 per cent. of the assessed value of the county, but as a beginning we have issued only \$50,000 of bonds, which we have sold at a premium. With this amount we hope to get the work well under way, feeling sure that the results will meet popular approval to the extent of larger levies being called for and voted until we will have a complete system of good roads in our county. We have one of the very best counties in the State outside of the Delta; in fact, we believe the best of the North Mississippi counties, but very undeveloped; nevertheless, real estate values in the county have increased fully 50 per cent. in the last five years. Our greatest need now is good roads, and we hope to have them in the next year or two. The name and address of our highway engineer is A. C. Sojourner, New Albany, Miss."

Cost of Operating Motor Trucks.

Mr. R. W. Hutchinson, Jr., of New York writes to the MANUFACTURERS RECORD that the tabulation of operating costs in his article on motor trucks in the textile industry, which was published in the MANUFACTURERS RECORD of July 20, contains several errors due to a lack of proof-reading on his part, and he sends the following corrected statistical data:

Investment.	
Seven-ton truck (with extra large body).....	\$6500
Number of miles operated per day.....	40
Total miles operated per year.....	12,000
Operating Expenses.	
Interest on \$6500 at 5 per cent.....	\$325 00
Depreciation at 5 cents per mile.....	600 00
Tires at 7 cents per mile (guaranteed).....	840 00
Maintenance at 5 cents per mile.....	600 00
Gasoline at 15 cents (average about 5 miles to gallon).....	275 00
Oil at 40 cents (3 bbls. at \$20 bbl.).....	60 00
Grease.....	12 50
Insurance (accident, fire, etc.).....	212 75
Driver at \$20 per week.....	1040 00
Garage charges, storage, washing, etc.....	250 00
Total cost per year.....	\$4215 25
Total cost per day.....	14 05
Total cost per ton.....	35
Total cost per mile.....	11

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

ACTIVITY IN OKLAHOMA.

Several Companies Planning to Build Either Steam or Electric Roads.

Considerable activity prevails at Oklahoma City with the object of building one or more railroads eastward from there. One of these is the proposed line of the Missouri, Oklahoma & Gulf Railroad, which will connect Henryetta and Oklahoma City. Another is that of the Oklahoma-Shawnee Railway Co., backed by L. E. Patterson of Oklahoma City, president of the Oklahoma Traction Co. This will not, it appears, go very far east, but plans a line to Shawnee and another to Chandler, north of that place. The third is the Oklahoma City & Eastern Railway Co., an interurban proposition incorporated in the interest of the Oklahoma Railway Co., of which A. H. Classen is president and John W. Shartel vice-president and general manager. Interest appears to center in the question as to which company will get the first line through. The last named proposes to build to Henryetta, just as the steam road proposes, and it is inferred that the Shawnee line may go farther than has been announced.

The distance from Oklahoma City to Henryetta is about 100 miles. Surveys are to be made immediately, but it seems that the Missouri, Oklahoma & Gulf Railroad Co. is near to beginning construction, as it has already outlined a route, and a bonus has been subscribed at Oklahoma City for terminals and a local company is organized to carry the plan through. Wm. Kenefick of Kansas City is president of the railroad, and has already built a great deal of line, in which a French syndicate is interested.

It seems that the charter of the Oklahoma City & Eastern Railway gives it authority to build steam lines as well as electric if it desires, but it is announced that the line to Henryetta will be an interurban, presumably operated by electricity, as are the lines of the Oklahoma Railway at Oklahoma City and in that vicinity. Its authorized capital is \$3,000,000. A survey is to begin immediately. John W. Shartel is quoted saying that his company intends to cover the interurban field out of Oklahoma City, and that its undertakings are all financed. At first a line 67 miles long eastward will be built. The westward line to El Reno is again under construction, and will be completed by Christmas. At least 40 miles of track will be finished and equipped during the rest of this year, and from 75 to 80 miles in 1912.

Mr. Patterson also declares that he will proceed to build his projected line to Shawnee and Chandler.

In addition to the lines projected eastward, it may be mentioned that the St. Louis & San Francisco Railroad, the Kansas City, Mexico & Orient Railway and the Missouri, Oklahoma & Gulf are reported as contemplating extensions to the west of Oklahoma City.

SURVEY TO COAL FIELDS.

Alabama, Tennessee & Northern Also Pushing Terminal Plan at Mobile.

The Alabama, Tennessee & Northern Railroad Co. confirms recent reports that surveys are being made for an extension north from Reform, Ala., to reach extensive coal fields. One line is northeast toward Birmingham, another west thereof to Jasper, and a third almost due north. Decision is not yet made as to which

route will be adopted. Either would connect with the Southern Railway, the Illinois Central Railroad and the St. Louis & San Francisco Railroad. There are rumors that a further extension may be made to Tusculum or Florence, Ala., and thence into Tennessee and Kentucky.

Construction of the Alabama, Tennessee & Northern Railroad began 10 or 11 years ago from Reform, a station on the Mobile & Ohio Railroad southward, and it is now 73 miles long, reaching York, Ala., and is still extending. The Tombigbee Valley Railroad, which is also controlled by John T. Cochrane of Mobile, is building northward, and eventually the roads will be connected, forming a through route traversing the western counties of Alabama from Reform to Calvert, about 30 miles north of Mobile, where connection is made with the Southern Railway for that city. The two lines are about 30 miles apart now, the northern terminus of the Tombigbee Valley road being Sou-wilpa, which is four miles north of Silas. Three miles east of Calvert is Nannahubba Bluffs, where the road has a deep-water terminal on the Tombigbee River.

The Mobile Terminal & Railway Co. is another corporation under the same control, and it proposes to develop terminal facilities on its property at Mobile, which consists of a valuable harbor frontage north of One Mile Creek and also a large tract on Farmers' Island. Mr. Cochrane has been granted a franchise to enter the city with his railroad, and grading and tracklaying in connection with the terminal plan are under way.

TEXAS ROAD REORGANIZED.

International & Great Northern Removes Headquarters to Houston.

Dispatches from Austin, Tex., announce the charter of the International & Great Northern Railway Co., this being the reorganization of the "railroad" company of the same name, with capital stock of \$11,500,000. The incorporators are Frank C. Nicodemus, Jr., of New York city, Horace Booth, Alfred R. Howard, William L. Maury and Dougald J. Price of Palestine, Tex., and Willis H. Cope, Samuel B. Dabney, Thomas J. Freeman, Frank T. Richardson and Milton L. Morris of Houston, Tex.

Officers have been elected as follows: President, Thomas J. Freeman of Houston; vice-presidents, George H. Taylor of New York and Henry Martin of Palestine, Tex.; secretary and treasurer, A. R. Howard of Palestine; assistant secretary and treasurer, Henry B. Henson of New York.

The new company assumes all the outstanding unsecured claims of the old one, it is said, the amount being about \$3,000,000. The headquarters of the road will be removed from Palestine, Tex., to Houston, and T. J. Freeman, who has been receiver and who is now president, will make his headquarters in New Orleans. The shops will remain at Palestine. The change of offices will mean the removal of 200 or 300 men and their families to Houston.

There are \$5,000,000 of preferred stock in the total capitalization of the company, and dividends are not to be paid on any of the \$6,500,000 of common unless 5 per cent. dividends have been set apart for or paid on the preferred.

RAILWAY DEAL CLOSED.

American Railways Co. Acquires Ohio Valley Electric & Light.

The Ohio Valley Electric Railway Co. has been acquired by the American Railways Co., according to dispatches from Huntington, W. Va., and it is said that the new owners will spend \$500,000 for improvements, including double track from Huntington to Kellogg, six miles. The

money involved in the deal was \$3,000,000, it is stated.

The Ohio Valley Electric Railway Co. operates electric cars at Huntington and also an interurban railway from Guyandotte, W. Va., to Ashland, Ky., and from Coal Grove to Ironton, O. W. C. Spreul of Chester, Pa., will, according to reports, continue as president.

The absorption of the Citizens' Light & Ice Co., an independent concern, by the Consolidated Light & Power Co., a subsidiary of the Ohio Valley Electric Railway Co., is also reported.

The American Railways Co., which has its general offices at 904-913 Witherspoon Building, Philadelphia, controls the Roanoke (Va.) Traction & Light Co., the Lynchburg (Va.) Traction & Light Co. and other public utilities corporations in other States. J. J. Sullivan is president and Henry J. Crowley general manager.

New Equipment, Rails, Etc.

The Missouri Pacific Railway has ordered 15 Pacific-type locomotives from the American Locomotive Co., New York, and they will be built at the Schenectady plant for October delivery. Later information from St. Louis about the company's car orders says that 11 chair cars, 8 passenger coaches and 2 divided passenger cars will be built by the Pullman Company, Chicago, and 15 baggage cars and 14 mail cars at the St. Charles (Mo.) plant of the American Car & Foundry Co. of St. Louis. Other car contracts are expected to be let soon.

The Seaboard Air Line has asked bids for \$1,500,000 of equipment notes to cover 1300 freight cars, 10 passenger engines, 10 freight engines and 5 switching engines which have been ordered.

The Pennsylvania is reported in the market for about 1000 cars, which will include 800 steel gondolas.

The Burlington system is reported getting bids for 2000 cars.

The United Water, Light & Traction Co. of Somerset, Ky., will buy some street cars. S. Whinery, 95 Liberty street, New York, is chief engineer.

A dispatch from Birmingham reports that the Frisco system has ordered 5000 tons of rails from the Tennessee Coal, Iron & Railroad Co., and it is rumored that as much as 30,000 tons may finally be ordered.

The Southern Railway, says a market report, has ordered 5000 tons of rails from the Cambria Steel Co., Cambria, Pa., and 5000 tons from the Pennsylvania Steel Co., Steelton, Pa.

The Frisco is reported to have ordered from the Pennsylvania Steel Co. 2500 tons of rails.

The Lycoming Timber & Lumber Co. of Virginia is reported to have ordered an 18-ton Shay locomotive from the Lima (O.) Locomotive & Machine Co.

The Frisco system, says a report from St. Louis, where its headquarters are located, will soon order more cars.

The Maysville (Ky.) Public Service Co., it is reported, will purchase four cars for city service.

The Oklahoma Empire Railway Co. wishes prices on first-class second-hand 65-pound steel rails. Address Thos. L. Eggleston, Jr., treasurer and secretary, Granite, Okla.

The Southwestern Traction & Power Co., Hennen Building Annex, New Orleans, La., will, it is reported, purchase four double-truck passenger and baggage cars for interurban service, two single-truck city cars, two trailers with benches and an electric locomotive.

The St. Louis & San Francisco Railroad is reported to have sold to Speyer & Co., New York, about \$3,000,000 of equipment notes, covering 1500 refrigerator

cars, 250 flat cars, 51 passenger cars and 32 locomotives.

A dispatch from Dover, Del., says that the Keyoke Railway Equipment Co. has been incorporated with authorized capital of \$500,000 to manufacture and sell railroad equipment and devices.

Cheat Haven to Bruceton.

Dispatches from Charleston, W. Va., announce the charter of the Cheat Haven & Bruceton Railroad Co. to build a line from Cheat Haven, Pa., to Albright, W. Va., with principal offices at Ice Ferry, W. Va. The road will cross Cheat River and extend through Monongalia county into Portland district of Preston county, West Virginia. The company has an authorized capital of \$75,000.

Gilmer S. Hamill, Sr., of Oakland, Md., who is one of the incorporators and vice-president of the company, writes that 11 miles will be built from Cheat Haven to Bruceton, W. Va. The route lies through both rolling and rough country. It is not decided when bids for construction and equipment will be received. Others interested are Frank Cunningham, president, general manager and chief engineer, Somerset, Pa.; Gilmer S. Hamill, Jr., Scott T. Jones, treasurer, and Stuart F. Hamill, all of Oakland, Md.

Connections will be made with the Baltimore & Ohio and the Morgantown & Kingwood railroads.

Oklahoma Empire Railway.

Thomas L. Eggleston, Jr., Granite, Okla., writes that the Oklahoma Empire Railway Co. will build 200 miles of line from Granite to a point in New Mexico via Salton, Okla., and the Panhandle of Texas. The route lies for the greater part through rolling to level country, but for a comparatively small part of the distance the land is rough. Bids for construction and equipment will be opened September 1. Connections will be made with the Fort Worth & Denver City Railway, the Colorado, Oklahoma & Gulf, the Santa Fe and the Rock Island systems. Thos. L. Eggleston, 505 2d street N. W., Washington, D. C., is president and general manager; Thos. L. Eggleston, Jr., Granite, Okla., is secretary and treasurer; W. R. Finlay of Victoria, B. C., is vice-president, and E. E. Colby of Granite is chief engineer. Paul Slayton and Marivin Spears of Granite are directors. The company is in the market for first-class second-hand 65-pound steel rails.

Railroad Statements.

The Seaboard Air Line has issued its statement of earnings for the fiscal year ended June 30, showing gross earnings, 1911, \$21,782,005; 1910, \$20,068,772; operating expenses, 1911, \$14,480,567; 1910, \$13,156,073; net earnings, 1911, \$7,301,437; 1910, \$6,912,699; operating income after payment of taxes, 1911, \$6,483,427; 1910, \$6,164,292; surplus, 1911, \$1,707,965; 1910, \$1,735,035. The gross earnings were the largest in the history of the company.

The Virginian Railway's statement for the year ended June 30 shows gross earnings \$3,671,224, increase as compared with the next previous year \$1,620,836; net earnings \$1,492,303, increase \$868,120; deficit \$829,697, decrease \$773,527; ratio of operating expenses to gross earnings, 59.3 per cent. It is remarkable to note that while freight earnings last year were 75 per cent. of the total, they are 90 per cent. this year.

Etowah Valley Electric Line.

Application has been made in Georgia to charter the Etowah Valley Railway Co., which proposes to build an electric railroad from Ball Ground, on the Louis-

ville & Nashville Railroad in Cherokee county, through Creighton to the northern boundary of the State in Towns county. It will pass through Forsyth, Lumpkin, Dawson and White counties. It is aimed to build the line either on private right of way or on public roads, as may be necessary. The company also proposes to manufacture and sell electricity for lighting, heating and power. The authorized capital is \$50,000. All the incorporators are of Dahlonega, Ga., thus: G. R. Glenn, H. D. Gurley, John H. Moore, T. J. Smith, J. M. Brooksher, J. E. Tate, H. Head, J. F. Sargent, W. H. Jones, B. F. Anderson, W. B. Townsend and Craig R. Arnold.

Extension of Logging Line.

The Alger-Sullivan Lumber Co., Century, Fla., advises that it will build 25 miles of railroad from a point in Monroe county to a point in Conecuh county, Alabama. This will include five or six pile trestle bridges and will be an extension of the company's logging line. The work will be done by contract, and bids will be opened about September 10. The route lies through rolling country, and connection will be made with the Louisville & Nashville Railroad's Selma division north of Repton, Ala. The officers of the lumber company are: President, J. Millen, Duluth, Minn.; vice-president, M. H. Sullivan, Pensacola, Fla.; secretary and treasurer, Edward A. Hauss, Century, Fla.

Clinchfield Lease Postponed.

The special meeting of directors of the Seaboard Air Line, which was called for August 15 to act on the proposition to lease the Carolina, Clinchfield & Ohio Railroad, has been postponed until the latter part of September. It is understood that the reason for deferring consideration was on account of the difficulty of getting all the members of the board together in August, when so many people are out of town, as well as because more time was desired to consider the matter before action.

Maryland & Pennsylvania Terminal.

J. S. Norris, general manager of the Maryland & Pennsylvania Railroad, says that the improvements at the North avenue terminal in Baltimore are progressing satisfactorily. The land purchased is being used for additional tracks to give more yard space and shops, which latter are completed. It is expected to build general freight and milk delivery sheds and platform. About \$200,000 will have been spent when all improvements are finished.

Improvements at Grafton.

The Baltimore & Ohio Railroad is doing some construction at its Grafton, W. Va., repair yard, which includes the building of a machine shop, a material platform, a locker and toilet-room building, and a carpenter shop. These structures are being built of fireproof material, and will cost about \$20,000. The contractor is the George B. Swift Company, Security Building, Chicago.

Railroad Notes.

The Gulf, Colorado & Santa Fe Railway has opened for traffic 50 miles of line from Lometa to Sellman, Tex., which was recently completed and known as the San Saba extension.

The directors of the Santa Fe system will recommend to the stockholders for approval at the annual meeting October 26 an issue of \$100,289,000 of convertible bonds, with an increase of capital stock of equal amount to care for them. These bonds are not to be issued immediately, but are to be held for issue from time to time as may be necessary for financing new construction or improvements.

TEXTILES

MODEL MILL VILLAGE.

Care for Operatives by a Company
Near Cartersville.

[Special Cor. Manufacturers Record.]
Cartersville, Ga., August 11.

Near Cartersville is the model manufacturing community of the Atco Mills, owned by the American Textile Co. The mills are at Atco, Bartow county, on the lines of the Seaboard Air Line and the Western & Atlantic Railroad, and only a mile from a line of the Louisville & Nashville. This mill was established on a tract of 500 acres of land in 1905 by E. L. McClain of Greenfield, O., as an individual investment, and only within the past two years was the company organized. In laying off the tract of land and in establishing the mill village forethought was had for the comfort, health and convenience of operatives. Just outside the main village are a number of well-built and neatly-kept cottages, which have been built by the operatives, the only condition being that when they relinquish the property it shall be turned over to the mill-owners at full value.

The streets of the village are paved with macadam, and are lighted by electricity. In front of the main assemblage of cottages is a park laid out with flowers, trees, shrubbery, grasses and running water for the pleasure of the operatives. There is a brick general store, a brick office surrounded by hedges, in charge of Mr. W. M. McCafferty, a public bathhouse and barber shop and a two-story brick structure in which is a public library, and in this building a school is carried on nine months in the year at the expense of the mill-owners, and there is also a Sunday-school held in the same building. There is also a clubhouse, and two of the most striking dwellings are those of the superintendent and of the manager of the mills.

From the clubhouse porch a fine view of the whole plan of the Atco mill village can be had. On one side are the mill and village, on another a small range of mountains, on another the town of Cartersville, and on the remaining side is a large pasture of 75 acres. This pasture is maintained by the mill, and it is used by the villagers free of cost to them for feeding their live-stock.

In the cottage division of the village no two cottages are alike. They are built in two even rows on each side of every block. Trees, grass and shrubbery are each of ample plots around the cottages in the greatest abundance, and are kept in order entirely by hired gardeners of the mill-owners. In the rear of the cottages is a washhouse and toilet, which are also kept in order by hired men, and are daily cleaned. These cottages, 105 in all, which contain from four to six rooms each, have running water, and are equipped with sinks and bathing facilities. They are rented to the operatives at the rate of \$1 per room per month.

The mill is three stories high and has 33,460 spindles and 802 automatic looms. It was so built that, without the removal of a single brick, additions may be made to meet expanding business. In the mill cupboards are at the end of each spinning frame, and they are cleaned daily. The floors are also scrubbed daily. In various places over the mill disinfectant and fresh air carriers are located. By this means the air on each of the floors is changed four or five times a day. Toilet towers are located about six feet from the main building, and are only accessible upon trellises. This keeps all unfavorable fumes from the main building and nostrils of the workers. Everything, in fact, is built for welfare of the operatives. Mr. J. W.

Brown is superintendent of the mill, and Mr. J. A. Miller is treasurer of the company.

ROY G. BOOKER.

Proximity Company's Big Signs.

The Proximity Manufacturing Co. of Greensboro, N. C., who will erect several big electric signs, sends the MANUFACTURERS RECORD the following interesting information:

"One sign will be composed of the words 'White Oak Denims,' 'White Oak' on the upper line and 'Denims' underneath. It will be installed across the lake at White Oak Mills, parallel to and fronting the main line of the Southern Railway, distant about 2000 feet. This sign will be placed on 60-foot poles set in concrete blocks in the water.

"The second sign will be made up of the words 'Revolution Flannels,' 'Revolution' forming the top line, with 'Flannels' underneath. It will be a roof sign, at the Revolution Mills, installed on angle iron framework about 40 feet in the air, parallel to and fronting the main line of the Southern Railway, distant about 1000 feet.

"The third sign will be installed at Proximity Mill, and will be made up of the words 'Proximity Denims,' the word 'Proximity' forming the top line, with 'Denims' underneath. This sign will be installed on 60-foot poles near a small lake at this mill, parallel to and fronting the main line of the Southern Railway, distant about 1500 feet.

"The signs will be made up of eight-foot one-half block plain surface enameled steel letters, a double row of lamps forming the outline of the letter. The letters will be proportionately spaced and the signs will average 100 to 125 feet in length. Each sign will average 900 lamps. Standard five-watt low-voltage tungsten lamps will be used throughout. These signs will will burn continuously all night."

New England Mill Men.

Among the subjects to be discussed at the semi-annual meeting September 27-30 at Manchester, Vt., of the National Association of Cotton Manufacturers are alignment of shafting and machinery, cleaning machinery by compressed air, conservation of water-powers, cost methods in cotton manufacturing, executive management of the textile plant and its relation to the market, illumination of textile mills, introduction of chemical bleaching of cotton cloth into the United States, new roller leather, New York Cotton Exchange in its relation to merchandising cotton, organization of carding department in cotton mills, services of the Department of Agriculture in the improvement of cotton, textile education from a manufacturer's standpoint, uniform contracts, weaving-shed roofs and work of the Tariff Board in connection with the cotton industry.

Graniteville Mill Enlargement.

The Graniteville (S. C.) Manufacturing Co. will increase the power of Graniteville Mill No. 1 by using an electric drive from Hickman Mill No. 3, where it will install a generator and use steam turbines. The company will also replace 10,000 mule spindles with 10,000 ring spindles and add 5000 ring spindles, 12 or 15 cards and intermediate machinery. Last month this company was mentioned as to improve power plant and add textile machinery.

For Cotton Twine Mill.

George Garrett, Jones Building, Detroit, Mich., writes to the MANUFACTURERS RECORD as follows:

"Will you kindly furnish me with the names of reputable manufacturers of ma-

chinery for manufacturing wrapping twine from cotton? Also can you give me an idea of the cost of fitting a small plant for this purpose and a suggestion as to the advisability of manufacturing twine in Texas, near Dallas? A recent article mentioned this as one of the small industries which could be carried on with profit in the South, and one which did not require a large investment. I am desirous of entering the manufacturing business in a small way in East Texas, and would appreciate any suggestion you may offer as to this or other kindred industries."

Purchased Jonesville Plant.

As attorney for others, H. J. Haynesworth of Greenville, S. C., has purchased the 'Jonesville (S. C.) Manufacturing Co.'s plant at \$125,000. This property includes land, buildings, 15,000 ring spindles, 240 broad looms, 160 narrow looms, dyeing and finishing equipment, etc., for manufacturing sheeting and hosiery yarns.

North Carolina Cotton Goods.

Between 1904 and 1909 the capital invested in the manufacture of cotton goods in North Carolina increased from \$57,413,000 to \$96,993,000, or 69 per cent.; the value of products from \$47,254,000 to \$72,680,000, or 54 per cent., and the average number of wage-earners from 36,356 to 47,231, or 30 per cent.

Katrim Manufacturing Co.

The Katrim Manufacturing Co. of Fork Shoals, S. C., has organized with \$50,000 capital stock and B. E. Geer as president-treasurer. Henry Briggs is vice-president and William Goldsmith is secretary. This company was recently reported incorporated, and its offices are at Greenville, S. C.

Of Interest to Textile Manufacturers.

C. F. P. Korssell, 5502 Indiana avenue, Chicago, writes to the MANUFACTURERS RECORD as follows: "Can you give me the address of cotton mills making cotton flannels, also those making toweling and wash-cloth material, also knit tubing for glove wrist? I know where some large orders can be placed for these goods."

Lowell Bleachery for St. Louis.

The Lowell (Mass.) Bleachery will take up an option on river-front land and obtain an option on an adjoining tract at St. Louis as site for its branch bleachery previously mentioned. The company will not begin building within nine months or a year.

Adding Spindles and Looms.

The Fairmont (S. C.) Manufacturing Co. will add 1500 spindles and 40 looms for print-cloth production, and has begun the installation. This company has been operating an equipment of 12,400 ring spindles, 300 broad looms, etc., on print-cloth production.

Enlarging Regina Mill.

The Regina Hosiery Manufacturing Co. of Haw River, N. C., will erect an additional building, of brick, 50x150 feet, and has begun construction. This company is operating 55 knitting machines and accompanying equipment.

Textile Notes.

The Davis Hosiery Mills of Fort Payne, Ala., will install additional machinery. This plant now has 100 knitting machines, etc.

Judge D. B. Chapin of Brownsville, Tex., and New England associates are reported as planning construction of a cotton mill in connection with Judge Chapin's plan for constructing a dam on Devil's River to irrigate from 125,000 to 150,000 acres of land near Spofford, Tex.

FOREIGN NEEDS

Machinery and equipment wanted abroad are mentioned in many letters received by the MANUFACTURERS RECORD, which is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. For the benefit of our subscribers seeking foreign trade we publish the following extracts from recent letters:

Cotton Goods, Leather and Piping.

Boghossian & Co., Paterson, N. J., write to the MANUFACTURERS RECORD:

"We are in receipt of inquiries from Ottoman Empire for new or second-hand one to six inches in diameter iron and galvanized water pipes. We would like to hear from Southern manufacturers and dealers. Parties desiring to extend their business may send lowest export prices, discounts, weight of each 100 feet and measurements, to be delivered f. o. b. steamer. It will be rather informative to state that the orders will be large, as we are in negotiation with the provincial government of Harpoot to supply all their needs. Our representative in said empire has mailed few samples of upper leathers having very extensive sale in that market; samples of glaze kid and patent leather uppers can be seen in our forwarders' office, 26 Whitehall street, New York, or will be landed to concerns interested. We will have another proposition for cotton goods manufacturers within a few weeks, as we are buying very large quantity of cotton goods for Levantin market from the commission-houses in New York, but we would like to deal with the manufacturers."

Paper and Pulp Machinery.

British Canadian Industrial Co., Ottawa, Canada, writes to the MANUFACTURERS RECORD:

"We would appreciate having you put us in touch with manufacturers of pulp-mill machinery, and would like complete catalogues, prices and shipping weight details, etc. Want proposition on 16 grinders, 12 wet machines, 12 hydraulic presses, 400 to 450 tons each, and full complement of adjusters; in fact, would like a detailed estimate for a mill capable of handling 100 tons per day of pulp wood for the manufacture of sulphite wood pulp; also for water-wheels for developing power for such a mill. A complete estimate, including all sundry and accessory machines, will be greatly appreciated. We would also like to have specifications and estimate for a mill equipment of equal capacity as above mentioned for the manufacture of news paper from sulphite wood pulp. Please address all correspondence and catalogues to J. A. Smith, care of the company."

Cotton Oil Prices Wanted.

R. W. Ashcroft, P. O. Box 139, Racine, Wis., writes to the MANUFACTURERS RECORD:

"Will you kindly print a notice to the effect that Messrs. John Hargreaves & Son, 15 Victoria street, Liverpool, England, desire quotations on cottonseed oil and similar products, and would like to enter into correspondence with American firms who are in a position to supply their requirements."

Paper Tubing and Valves.

Josef Mitteregger, 877 Holton street, Milwaukee, Wis., writes to the MANUFACTURERS RECORD:

"The undersigned takes the liberty of applying to know if the MANUFACTURERS RECORD is in a position to inform him where manufacturers of paper tubing for spin houses (cotton and other yarn fac-

ories) can be found; light throttle valves and tubing for vicugna wool (vigogne) are also wanted. I have just recently come to this country from Austria, where I had been foreman in a factory, and I beg you if possible to help me and put me in communication with the proper parties."

Potato Peelers Wanted.

Marchisio & Co., 27 via Bagetti, Turin, Italy, writes to the MANUFACTURERS RECORD:

"Please give me, if you can, the address of some manufacturer of the latest and most improved machines for peeling potatoes for use in hotels."

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

July Shipments from Gulfport.

Dispatches from Gulfport, Miss., say: "The record for exports of lumber from Gulfport for July, as taken from the records at the custom-house, shows that the total was 28,138,000 board feet. The exports of lumber, that is, boards, planks, etc., for the month amounted to 22,283,000 feet, having a value of \$448,353; exports of hewn timber amounted to 1,354,000 feet, with a value of \$27,209; exports of sawn timber were 4,501,000 feet, with a value of \$92,128. The total value of all lumber exported is shown to be \$567,690. The June shipments amounted to 41,438,000 feet, with a total value of \$809,418. However, the miscellaneous shipments, rosin, turpentine, shingles, etc., for July were much in excess of those in June, the total miscellaneous being \$235,676, as compared with only about \$27,000 in June. The shipments of lumber for the first six months of 1911 amounted to 190,905,000 feet. If this amount is added to the shipments for July the total is 219,043,000. This is at the rate of 31,000,000 feet per month, and if this rate is continued for the next five months the total for the year will be 75,000,000 feet in excess of the record of 1910."

Big Lumber Shipment at Charleston.

The Norwegian steamer *Aurora* cleared from Charleston, S. C., last week for Quebec with a cargo of 725,000 feet of long-leaf pine lumber. Referring to this, the *Charleston News* says: "It is not often that ships carry lumber from the South to Canada ports, but the exception to the rule is a good advertisement for the section from which the timber comes. On one of the big square timbers loaded on the *Aurora* the following was written in a clear, bold hand with a lumberman's blue pencil: 'Southern pine sawn in a Southern saw-mill, hauled on a Southern wagon, drawn by a Southern mule, driven by a Southern nigger. Moral: Buy your goods in the South.'"

A \$200,000 Timber Purchase.

Referring to its purchase of timber land, the West Virginia Timber Co. of Charleston wires to the MANUFACTURERS RECORD as follows: "Purchased timber; 10,000 acres in Lincoln and Boone counties, West Virginia; probably 40,000,000 feet, approximating \$200,000; propose to erect modern eight-foot single-band mill complete; capacity 40,000 feet per 10 hours; largely oak of fine quality."

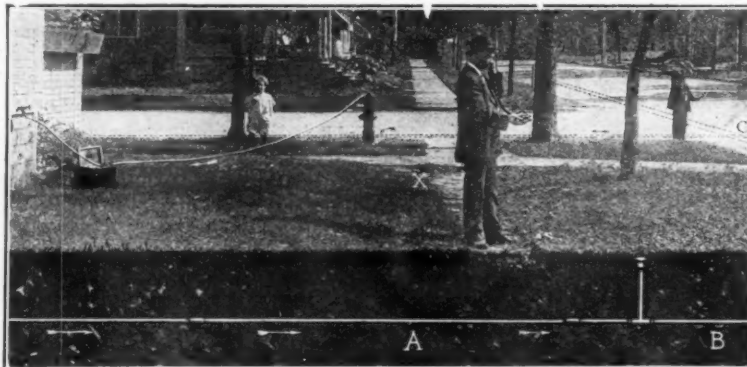
Big Timber Purchase.

The Dooley-Kellogg Lumber Co. of Memphis purchased 10,000,000 feet of hardwood timber for \$30,000. This timber is mostly red and white oak, and is being logged at the rate of 30,000 feet daily. The lumber is being manufactured at the company's Memphis band mill.

MECHANICAL

The Wireless Pipe Locator.

An instrument for showing the location of any concealed or underground pipes,



LOCATING LOST PIPE WITH WIRELESS PIPE LOCATOR.

such as gas, water, steam or other pipes, has been developed after two years' experience with wireless cable testers, and is manufactured by the Modern Iron Works, Quincy, Ill. The Southern agent of this company is C. F. Blount, Equitable Building, Atlanta, Ga.

The wireless pipe locator consists of a special form of vibrator and induction coil mounted in a substantial oak box, provided with space for a galvanic battery. This part of the instrument produces the necessary current in the pipes, including the lost pipe, thereby producing a magnetic field. A specially-constructed detector coil and receiver is provided to be used by the operator in tracing the limits of this circuit; that is, in locating the lost pipe. The operation is found to be quite simple, and it is claimed that any average workman can use the outfit. The nearer the coil is brought to the conductor the louder the tone.

The illustration herewith shows the method of locating a lost pipe. A and B represent the service pipe, with stop-box or cut-off, which has become covered with grass; C represents the street mains; X, the electric field, and the arrows show the direction of the current. It is desired to find the pipe that supplies the water service to this house. The circuit is formed by connecting one side of the instrument to the faucet and the other side to the fire hydrant. On closing the battery circuit an electric current will be set up, as shown by the arrows. The man in the foreground with the detector coil and receiver can hear the sound made by the vibrator. But in passing over the service pipe or the main an abrupt change in the tone is noticed. By stopping where the change takes place the operator will be standing almost over the pipe. The operator can hear the vibrations as long as he is anywhere in the field, but the change will be noted as soon as this field is left.

This result has been accomplished after months of experimenting to obtain the right size and proportion of wires to produce the desired results, on account of the pipe being laid in the ground, which is also a conductor. It has now been developed to the point where it is no longer an experiment, and is in actual use by many water and gas companies. It is sent on trial and is claimed to be infallible when properly used.

The Southern Can Co.'s New Plant.

As an example of complete modern can manufacturing plants, the new plant of the Southern Can Co., 717 S. Wolfe street, Baltimore, is interesting.

Since its establishment in 1901 the growth of its business has required two re-

movals into larger quarters. This third plant consists of three remodeled and one new building just completed and so connected that they form one plant.

The new plant has been equipped under the supervision of the president of the company, E. Everett Gibbs, and the vice-

president, J. H. Carey, and also carries on an extensive business in general lithographing on metals. The scrap tin, which was formerly wasted, is now sold for about \$14 per ton.

The canmaking machines consist of a large number of the latest designs as manufactured by the E. W. Bliss Company, Brooklyn, N. Y., and Slaysman & Co., Baltimore. Every operation in the successive stages of manufacture is mechanical, the operations keeping up a constant stream of unfinished cans from the time the metal is cut into strips of the size required to the soldered and finished can. The last operation passes the finished can to the testing machine, by which every can is tested for airtightness, by applying pressure under water. Every can that permits bubbles to come to the surface due to air pressing out under water is rejected. This testing machine is manufactured by Stevenson & Co., Baltimore. About 450 men and women are employed.

The products of the company include a great variety of cans, up to five gallons, for packers of fruit, oysters, vegetables, meats, lard, coffee, tea, spices, molasses, syrup, etc. Orders are received from all parts of the country. Its greatest market for fruit, vegetable and oyster packing cans lies in the States of Maryland, Delaware, Virginia, New Jersey and Pennsylvania, and in Tennessee and Texas for



FIG. 1.—SWITCHBOARD AND WIRE-SOLDER MACHINE.

nished by the Gas & Electric Co., Baltimore, using General Electric group motors as manufactured by the General Electric Co., Schenectady, N. Y. The switchboard controlling the current from the electric mains is shown in Fig. 1, together with the wire solder-making machine, through which all the wire solder used by the com-

pany is formed by forcing block solder through wire-drawing dies at pressures up to 3000 pounds per square inch.

The belting from the group shafts, operated by General Electric motors, is so arranged that each machine in a group will be operated while that group shaft is running. This makes an economical arrangement and permits of using motors of

own lithographing and also carries on an extensive business in general lithographing on metals. The scrap tin, which was formerly wasted, is now sold for about \$14 per ton.

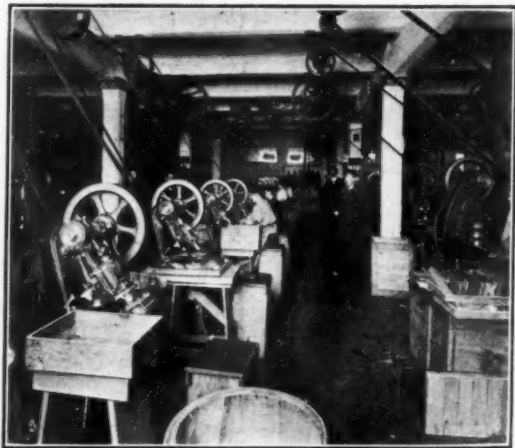


FIG. 2.—CAN-MAKING MACHINES.

It is estimated that next season's oyster catch in Louisiana will be 1,000,000 barrels.

Construction Department

TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "It is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription to the Daily Bulletin is included for the contract period.

BRIDGES, CULVERTS, VIADUCTS

Ark., Pine Bluff.—Jefferson County Bridge Co. will construct bridge across Arkansas River.

Fla., Fernandina.—District's Nos. 1, 2 and 3 of Nassau county will vote September 12 on \$100,000 bond issue for construction of road and bridge to middle of Nassau River as Nassau's share in hard road to Jacksonville. Address County Commissioners.

Ga., Greensboro.—Greene county will vote in October on bond issue for bridge construction. Address County Commissioners.

La., Lake Charles.—George T. Lock, W. P. Weber, H. W. Lanz and others have been appointed committee to have surveys made and secure estimate of cost to construct bridge across Calcasieu River.

La., New Orleans.—New Orleans and St. Tammany Bridge Association will organize to arrange for constructing bridge across Lake Pontchartrain, connecting St. Tammany parish with New Orleans, to be known as Orleans-St. Tammany Great Causeway; J. Frank Coleman submitted plans for creosoted pile structure, providing railroad track with six side-tracks, each one-half mile long; roadway 25 feet wide and four drawbridges at suitable intervals; total length of bridge 2½ miles; approximate cost \$6,250,000; Emile V. Stier, manager Louisiana Development League, St. Charles and Gravier Sts., is interested. (Recently noted under Shreveport.)

Miss., Wavilla.—Steel bridge will be erected across Fair River; contract to be let at

courthouse, Monticello, Miss., September 4, 2 P. M.; plans and specifications on file with W. H. Speights, clerk of board.

Mo., Springfield.—City will vote November 21 on \$100,000 bond issue for bridge construction. Address The Mayor.

N. C., Gastonia.—Gaston County Commissioners awarded contract to York Bridge Co., York, Pa., for erection of proposed 100-foot-span steel truss bridge with 12-foot roadway.

N. C., Wentworth.—Rockingham County Commissioners, J. P. McMichael, clerk of board, will repair approach to bridge across Dan River and construct five bridges; bids, etc., received September 6. (See "Machinery Wanted.")

S. C., Lexington.—Lexington county will construct steel bridge across Saluda River at Amick's Ferry; County Commissioners will soon invite bids.

Tenn., Chattanooga.—Robert Hooke, City Engineer, Nashville, Chattanooga & St. Louis Railway (H. McDonald, chief engineer, Nashville, Tenn.), and Cincinnati, New Orleans & Texas Pacific Railway (C. Dougherty, chief engineer, Cincinnati, O.) selected Willbur J. Watson as engineer to supervise construction of McCaillie Ave. viaduct; structure will be either of reinforced concrete or of steel encased in concrete; vitrified brick floor; concrete and cement sidewalks. (Recently mentioned.)

Tenn., Knoxville.—Knox County Commissioners awarded contract to Dykes & Co. to rebuild and repair timber bridges; G. W. Pearsall, County Engineer.

Tex., Galveston.—Gulf, Colorado & Santa Fe Railway, Frank Merritt, chief engineer, Galveston, Tex., awarded contract to W. C. Rettiger, Belton, Tex., for all masonry bridge work on its line.

Tex., La Marque.—Galveston County Drainage District No. 2 will receive bids until September 1 for constructing 25 to 40 small timber bridges; B. F. Ayers, chairman of Commissioners; E. N. Sanctuary, engineer, Galveston, Tex. (See "Machinery, etc., Wanted.")

W. Va., Talcott.—Talcott district of Summers county voted \$55,000 bond issue for free bridges and road improvements; county will either purchase bridges across Greenbrier River at Talcott and Pence Springs or erect new structures. Address District Commissioners.

CANNING AND PACKING PLANTS

Fla., Tampa.—Reichard Manufacturing Co., Frank Gass, secretary-treasurer, Chicago, Ill., is considering. It is reported, establishment of cannery.

Ga., Augusta.—Augusta Canning Co. will rebuild burned cannery.

La., St. Bernard.—Lopez-Desportes Packing Co. organized with \$100,000 capital stock; Arnaud Lopez, president; Ulysses Desportes, vice-president; H. B. Bush, secretary-treasurer.

Mo., Kansas City.—Carr-Heckert Fish & Oyster Co. incorporated with \$10,000 capital stock by O. L. Carr, J. B. Heckert, E. A. Heckert and others.

Va., Petersburg.—J. L. Dean Fish Co. incorporated with \$10,000 capital stock; David Dunlop, president; R. L. Dunlop, vice-president; LeRoy Roper, secretary and treasurer; John L. Dean, manager.

CLAYWORKING PLANTS

Ala., Ragland.—M. Bandas and associates are organizing company to establish pottery. (See "Machinery Wanted.")

Ala., Ragland.—Brick—Ragland Brick Co. will double capacity of plant; will install perpetual kiln to cost \$60,000.

COAL MINES AND COKE OVENS

Ala., Birmingham.—Hobson-Starnes Coal Co. incorporated with \$20,000 capital stock by A. Mahen Hobson, B. M. Starnes and H. N. Starnes, Jr.

Ala., Jefferson County.—State of Alabama has leased (for five years) Banner mines of Pratt Consolidated Coal Co. of Birmingham, Ala., in Jefferson county; will begin operations after November 15; convict labor; State expects to increase output from 1100 tons to from 1800 to 2000 tons daily; James G. Oakley, president State Convict Board, Montgomery, Ala.

Ky., Morton's Gap.—St. Bernard Mining

Co., John B. Atkinson, president, Earlington, Ky., will construct tippie and approaches to coaling station; material mainly supplied.

Kentucky.—Kentucky-Panama Coal Co., Inkerman Bailey, Sr., president, 66 Broadway, New York, contemplates beginning development of 8400 acres coal lands in Western Kentucky within 60 days; bids will be asked on construction and equipment; Inkerman Bailey, Jr., special financial agent, 1507 Manhattan Life Bldg., 66 Broadway, New York. (Previously noted organized with \$1,000,000 capital stock to develop land in Hopkins and Muhlenberg counties; daily output, each plant, 1500 tons.)

Okla., Krebs.—McAlester City Coal Co., E. A. Jones, manager, will develop 960 acres; daily output 200 tons. (Recently noted incorporated under McAlester, Okla., with \$10,000 capital stock.)

Va., Big Stone Gap.—Hall Coal Corporation incorporated with \$30,000 capital stock; W. S. Mathews, president; E. J. Prescott, secretary and treasurer, Big Stone Gap; H. L. Moore, vice-president, Chattanooga, Tenn.

W. Va., Charleston.—Elliott Splint Coal Co. incorporated with \$1,200,000 authorized capital stock, to develop coal properties in Kanawha and Clay counties, by W. B. Whiting, M. A. Hinshillwood, Ellis R. Diehm, C. C. Owens and H. J. Crawford, all of Cleveland, O. Mr. Whiting wires to Manufacturers Record: "Not ready to give any information."

W. Va., Coalwood.—Virginia-Buffalo Coal Co. incorporated with \$25,000 capital stock by S. C. Minnich, W. C. Sharpe, B. W. Mock, E. S. Carr and C. E. Bullard.

CONCRETE AND CEMENT PLANTS

Ark., White Cliffs.—Louis S. Simon & Co., Rusk St. and I. & G. N. tracks, Houston, Tex., advise Manufacturers Record that negotiations are pending with Northern capitalists toward erection of \$1,000,000 plant on site of White Cliffs Portland Cement Co.'s plant; Simon & Co. also wire to Manufacturers Record that B. G. Lane of San Antonio, Tex., owns White Oaks property.

COTTON COMPRESSES AND GINS

Ga., Sparks.—Claude Adams will rebuild cotton gin recently burned.

N. C., Mooresboro.—Mooresboro Cotton Oil Co., John E. McBrayer, president, will expend \$3000 to construct cotton gin; building 62x20 feet; wood; construction by company; machinery purchased. (Recently noted.)

Okla., Hollister.—Farmers' Cotton Gin Co. incorporated with \$8000 capital stock by William Britton, G. W. Haynes and E. H. Ballard of Hollister; B. F. Stephens of Frederick, Okla., and S. J. King of Loveland, Okla.

Tenn., Riceville.—Riceville Gin & Warehouse Co. incorporated with \$2000 capital stock by T. M. Womac, Walter Carruth, J. L. Ware, D. B. Yearwood and J. R. Ware.

Tenn., Memphis.—Farmers' Gin Co. incorporated with \$4500 capital stock by Edward Roleson, A. D. Allen, J. R. Harrison and others.

Tenn., Memphis.—West Tennessee Gin Co. incorporated with \$5000 capital stock by P. Rand, L. F. Jackson, G. S. Salway, J. Myers and A. C. Crofton.

Tex., Beaumont.—Beaumont Cotton Gin Co. will be incorporated with \$5000 capital stock; H. H. Perlstein, William Saenger and others are interested. (Recently noted.)

Tex., Blessing.—J. E. Pierce Gin & Milling Co. incorporated with \$5000 capital stock by J. E. Pierce, A. B. Pierce and John H. Roach.

Tex., Chilesman.—Simon Philp will erect cotton gin; four gin stands; operated by 70-horse-power engine.

Tex., Gorman.—Gorman Compress Co. (recently reported incorporated with \$12,000 capital stock by F. S. Perry and others) has not yet elected officers; purchased machinery; may want water-wheels equipment later. (See "Machinery Wanted.")

Tex., Hockley.—Joseph Biana will erect cotton gin and grist mill; construction begun.

Tex., Highbank.—T. S. Italian Gin Co. incorporated with \$9800 capital stock by Vincenzo Tusa, Jr., Tony Loria and B. Catalano.

COTTONSEED-OIL MILLS

N. C., Oriental.—Famlico Union Cotton Oil Mill & Warehouse Co. will erect cottonseed-oil mill; fireproof construction; cost \$10,000; construction supervised by A. F. Mdyett; cost of machinery \$15,000; O. C. Daniels, president; J. J. Brinson, vice-president; J. L. Dixon, secretary-treasurer. (Recently reported incorporated with \$50,000 capital stock.)

Okla., Oklahoma City.—Oklahoma Cotton Oil Co., James W. Du Pre, manager, will rebuild cottonseed storage warehouse; 80x200 feet; fireproof construction; will install seedhouse and cleaning machinery; daily capacity 150 tons of cottonseed. (Previously reported burned.)

S. C., Gray Court.—Gray Court Oil & Fertilizer Co. incorporated with \$25,000 capital stock by F. D. Hunter, Simpsonville, S. C.; J. W. Du Pre and G. W. Owings, Owings, S. C.

Tex., Cleburne.—C. T. Jackson purchased local cottonseed-oil mill and will expend \$5000 in installation of separating and seed-cleaning machinery; C. D. Helm, Fort Worth, Tex., will be superintendent.

DRAINAGE AND IRRIGATION

Ark., Brinkley.—Drainage district organized to drain and reclaim about 100,000 acres in Monroe and Lee counties; canal to be about 20 miles long; estimated to cost \$75,000; William Banks will be engineer in charge.

Ark., Pine Bluff.—District recently noted formed to drain 22,000 acres land has following officers: President, W. L. Davis, Wabaska, Ark.; secretary, W. C. Hudson; these, with R. Sondheimer of Memphis, Tenn., are members of commission; engineers, White & Watson, Pine Bluff; will construct canal eight and one-third miles long at cost of \$33,000; begin construction in November.

La., Cameron Parish.—Smith-Newman Land Co., C. L. Smith, president, Beaumont, Tex., purchased 100,000 acres marsh land in Cameron parish, which, with previous purchase, gives company 150,000 acres, extending from Sabine River to Calcasieu Lake; plans to construct drainage system and colonize.

La., Gonzales.—New River Drainage District voted \$175,000 bond issue for system to drain about 62,000 acres; work will include dredging and cleaning New River Bayou, extending about 20 miles; Black Bayou, about six miles, and Goodline Bayou; Leon Picard is president of Drainage Commissioners. (Recently mentioned.)

La., New Iberia.—City contemplates connecting uncompleted commercial and drainage canal, now within two miles of city limits, with Bayou Teche. Address The Mayor.

La., St. Charles Parish.—St. Charles Municipal Drainage District will levy land tax and issue about \$350,000 of bonds for drainage and reclamation, by leveeing and pumping, all lands within district limits; 15,791 acres; Frederick P. Morrill, president, and R. E. Boyce, secretary Board of Commissioners; president has been instructed to ask drainage estimates from contractors; preliminary surveys made by Board of State Engineers and John A. Kruse Engineering Co., 706 Gaff Bldg., Chicago, Ill.

Tex., Alpine.—H. J. Gray of Alpine is interested with Kansas City capitalists in purchase of Irving ranch and adjoining property, involving \$250,000; plan to place 23,000 acres under water and construct dam 800 feet at base, 1800 feet at crest and 80 feet in depth.

Tex., La Marque.—Galveston County Drainage District No. 2 will receive bids until September 1 for excavating 210,012 cubic yards; B. F. Ayers, chairman of Commissioners; E. N. Sanctuary, engineer, Galveston, Tex. (See "Machinery Wanted.")

ELECTRIC PLANTS

Ala., Anniston.—Anniston Realty Co. (H. F. Williamson and others) proposes to extend electric-light system. (See "Land Developments.")

Ala., Cedar Bluff.—W. T. Lassiter will install electric-light plant.

Ala., Columbiana.—Mount Dixie Sanatorium, Land & Investment Co. has acquired franchise granted several months ago to G. L. Carlisle and associates and will construct electric-light plant.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Ala., Stevenson.—City engaged J. B. McCrary Company, 1311 Empire Bldg., Atlanta, Ga., to prepare plans and estimates for electric and water plant.

Ark., Clarksville.—City is having plans prepared by R. L. Goodman for electric-light plant; will vote on \$75,000 bond issue for electric-light plant, water-works and sewer system. (Recently mentioned.)

Fla., Fort McCoy.—George Rentz contemplates establishing electric-light plant. (See "Ice and Cold Storage.")

Ga., Newnan.—Virginia-Carolina Chemical Co., Richmond, Va., awarded contract to C. T. Gifford, Columbus, Ga., to rebuild power-house.

Mo., Princeton.—City voted on issuance of \$7000 electric-light extension and water bonds. Address The Mayor.

Mo., Rolla.—City will vote on \$8000 bond issue for repairs to electric-light plant. Address The Mayor.

Okla., Coweta.—City will make extension to electric-light plant, etc.; bond issue of \$20,000. (See "Water-works.")

Okla., Waynoka.—City awarded contract to Oklahoma Engineering Co., Anadarko, Okla., at \$24,475 to construct electric-light plant and water-works; William Haviland, Alva, Okla., engineer. (Recently noted.)

S. C., Honea Path.—Board of Public Works, John F. Monroe, chairman, will receive bids until September 5 for construction of electric plant recently noted; 75 kilowatt; cost \$11,000; Thomas W. Cothran, engineer, Greenwood, S. C. (See "Machinery Wanted.")

S. C., Lexington.—Lexington Electric Light & Power Co. will install auxiliary steam plant at electric power-house.

Tenn., Jackson.—City will expend about \$30,000 in construction of electric-light plant; machinery ordered. Address The Mayor. (Previously mentioned.)

Tex., Bryan.—City will vote August 21 on \$7000 bond issue for electric-light plant; J. T. Maloney, Mayor. (Recently noted.)

Tex., Buckholts.—W. R. Newton contemplates, it is reported, installation of electric-light plant in sanitarium.

Tex., Crystal City.—Commercial Club is promoting establishment of electric-light and ice plants.

Tex., Fowlerton (not a postoffice).—Fowler Bros. Land Co., 206 Frost Bldg., San Antonio, Tex., will not construct electric plant recently noted; will consider propositions to locate plant. (See "Machinery Wanted.")

Tex., Kennedy.—J. D. Autry & D. D. McAda have franchise to erect electric-light plant.

Va., Lawrenceville.—City voted \$50,000 bond issue for construction of electric plant, sewer system and water-works; plans and specifications by J. B. McCrary Company, 1311 Empire Bldg., Atlanta, Ga. (Recently noted.)

FERTILIZER FACTORIES

Ala., Tuscaloosa.—Tuscaloosa Cottonseed Oil Co. has plans by Pratt Engineering & Machine Co., Atlanta, Ga., for dry-mixing plant; 132x196 feet; frame; day labor; equipment will include 75-kilowatt generator or dynamo and two 20-horse-power motors; lighting system to be installed throughout buildings; contracts for electric supplies and building materials awarded; contract for foundation recently noted awarded to Tuscaloosa Concrete & Supply Co., Tuscaloosa.

Ala., Wetumpka.—Coosa River Fertilizer Co. incorporated with \$18,000 capital stock.

Ark., Little Rock.—Southern Cotton Oil Co., P. S. Lamar, chief engineer, is having plans revised by W. D. Holtzman, Jr., architect, Southern Trust Bldg., Little Rock, for new building for fertilizer mill; building will be 100x200 feet and 50 feet high, equipped for manufacture of fertilizer from cottonseed products.

Ga., Columbus.—Southern Cotton Oil Co., Lawrence Murray, manager, awarded contract to C. T. Gifford of Columbus to construct fertilizer mixing plant.

Ga., Culloden.—Culloden Fertilizer Co. incorporated with \$10,000 capital stock by J. O. Holmes Company, Haygood Bros., W. J. Zellner, W. A. Worsham and others.

Ga., Madison.—Madison Fertilizer Co., H. H. Fitzpatrick, president, has not determined plans to erect fertilizer factory. (Recently noted to increase capital stock to \$100,000.)

Miss., Moss Point.—Moss Point Fertilizer Co. (recently reported organized with \$25,000 capital stock), T. E. Spencer, acting secretary-treasurer, will receive proposals after August 22 to erect fertilizer factory; 50x150 feet; machinery to include fertilizer mixer to be operated by motor power or 30-horse-

power gasoline engine; daily capacity 150 tons fertilizer. (See "Machinery Wanted.")

Tex., Dallas.—Basmussen Bros. will construct fertilizer plant.

Tex., San Augustine.—San Augustine Fertilizer Co. organized by Samuel Parker and J. W. Armstrong of San Augustine and James D. Dawson, Houston, Tex.; will establish commercial fertilizer plant.

FLOUR, FEED AND MEAL MILLS

Tex., Hockley.—Joseph Blaha will erect grist mill and cotton gin; construction begun.

FOUNDRY AND MACHINE PLANTS

Ala., Birmingham—Pipe Works.—Dimmick Pipe Co. ratified sale of plant at East Birmingham to United States Cast Iron Pipe & Foundry Co., 71 Broadway, New York, at \$293,000 and bonded indebtedness of \$179,000; will improve and operate plant. (Recently mentioned.)

Ky., Louisville.—Cars.—Louisville Railway Co., T. J. Minary, president, contemplates erecting plant to manufacture street cars and for repair purposes.

Ky., Louisville.—Machinery.—Globe Machine Co. has organized with Andrew B. Jutt, president; Albert S. Dietzman, secretary; Richard H. Diezman, treasurer; will operate machine and general repair shop; has building. (Recently reported incorporated with \$500 capital stock.)

N. C., Greensboro.—Gulford Foundry Co. purchased W. B. Cook & Company's foundry; plant equipped; W. W. Smith, president; W. A. Cook, vice-president and general superintendent; Charles D. Benbow, Jr., secretary-treasurer; company recently reported incorporated with \$25,000 capital stock. (See "Machinery Wanted.")

Tex., Houston.—Boilers.—T. J. Finucane, Youngstown, O., will establish boiler works; building to be 75x100 feet; purchase of site and cost of building about \$7000; Taylor & Guthrie will be in charge of construction.

Tex., Fort Worth.—Pumps.—Crescent Pump Works, Flatiron Bldg., will be organized by W. T. Pittman and others with \$25,000 to \$50,000 capital stock to manufacture pumps for water-works, irrigation, etc.; asks bids on machinery. (See "Machinery Wanted.")

GAS AND OIL DEVELOPMENTS

Okla., McAlester.—Bankers' Oil & Gas Co. (recently noted incorporated under Muskogee, Okla., with \$100,000 capital stock) will begin operation about October 1 13 miles from McAlester; contemplates piping oil to McAlester; will let contract to drill well; J. H. Ross, president; J. C. Campbell, vice-president; C. E. Wilhelm, secretary; A. T. West, treasurer. (See "Machinery Wanted.")

Okla., Okmulgee.—Moss Agate Oil Co. incorporated with \$10,000 capital stock by Jas. B. Wheeler, Harlan Reed and W. E. Nixon.

Tex., Henrietta.—Clay County Oil Co. incorporated with \$67,000 capital stock by W. B. Worsham, J. B. Dale and J. T. Dale.

Tex., Sherman.—Charles Batsell, representing W. S. Russell and associates, petitioned city for franchise to pipe natural gas to Sherman; R. R. Hopson, Mayor pro tem.

W. Va., Huntington.—Virginia Oil & Gas Co., D. O'Connell, president, will construct gaspipe line from gas fields in Lincoln county to Huntington.

W. Va., Clay.—Jack Bend Oil & Gas Co. incorporated with \$50,000 capital stock by H. B. Davenport, A. S. Davenport, S. H. McLane, A. W. Bell and W. T. Hamrick.

W. Va., Parkersburg.—Pennant Oil Co. incorporated with \$25,000 capital stock by John M. Crawford, David B. Crawford, G. L. Dudley and others.

W. Va., Philippi.—Kemper Oil & Gas Co. incorporated with \$10,000 capital stock by J. F. Manown, Randolph Stalnaker, S. A. Moore, C. F. Teter and others.

ICE AND COLD-STORAGE PLANTS

Fla., Fort McCoy.—George Rentz contemplates establishing ice plant of 25 tons capacity, cypress crate and box factory, electric-lighting plant and water-works at Fort McCoy and Silver City.

Ga., Atlanta.—Blue Seal Ice Cream Co. has plans by George E. Murphy, 332 Candler Bldg., Atlanta, for ice and refrigerating plant; 75x75 feet; two stories and basement; reinforced concrete; brick walls; steam heat; electric lighting; gravel roof; concrete slab; cost \$15,000; date of opening bids not set; daily capacity, five tons of ice. (See "Machinery Wanted.")

Ky., Lexington.—Kentucky Traction & Ter-

minal Co. will construct ice plant; F. W. Bacon is vice-president.

Miss., Ellisville.—J. R. Caldwell, owner, will rebuild Ellisville Ice Factory & Bottling Works plant reported burned; five-ton ice plant.

N. C., Greensboro.—Southern Ice & Cold Storage Co., Box 250 (recently noted to install 50-ton ice plant), will open building and machinery proposals October 15; erect 150x75-foot wood structure; estimated cost, \$10,000; machinery estimated to cost \$35,000; J. R. A. Power, president; T. A. Armstrong, secretary, treasurer and manager. (See "Machinery Wanted.")

S. C., Johnston.—F. M. Boyd, manager electric-lighting plant, is interested in organization of company to operate ice plant in connection with electric plant. (See "Machinery Wanted.")

Tex., Crystal City.—Commercial Club is promoting establishment of ice and electric-light plants.

Va., Great Gate, P. O. Narrows.—Walter Graham contemplates establishment of ice and cold-storage plant and creamery. (See "Machinery Wanted.")

IRON AND STEEL PLANTS

Ala., Anniston.—Iron Furnace.—Jennifer Furnace Co., T. A. Thomas, president, Niles, O., contemplates, it is reported, blowing in iron furnace.

LAND DEVELOPMENTS

Ala., Anniston.—Anniston Realty Co. organized by H. F. Williamson, M. B. Wellborn, L. E. Ogletree, Joseph Saks, O. H. Parker and others; proposes to build 17-acre park, extend electric-light system, etc.

Ala., Rossland (not a postoffice).—Rossland Development Co., Robert R. Zell, engineer, Birmingham, Ala., is completing surveys and will commence street and lot improvements by September 1; erect warehouse. (See "Machinery Wanted.")

D. C., Washington.—Kelsey & Cret, architects, Philadelphia, Pa., have prepared plans for improvement of grounds surrounding Pan-American Union Bldg. at 17th St. and Potomac Park; work will comprise suitable terraces, steps, parking and grading; understood that plans call for marble coping around entire building and marble steps throughout park wherever needed; parking to be in Spanish architecture; \$100,000 donated.

D. C., Washington.—Richmond Park Improvement Co., J. G. Edmunds, president, Lynchburg, Va., will develop 12 acres in District of Columbia near Washington as residential section; improvements will include macadam streets, cement sidewalks, sewer system and water-works. (Recently reported incorporated under Lynchburg, Va., with \$100,000 capital stock.)

Fla., Tampa.—City contemplates voting on \$50,000 bond issue for new park sites; D. B. McKay, Mayor.

Ka., Titusville.—Titusville Fruit & Farm Lands Co. incorporated with \$300,000 capital stock by Edgar W. Ellis and C. J. West of Titusville, A. H. Ellett, San Angelo, Tex., and W. H. Bryson, Columbus, O.; is proceeding with development of 22,000 acres about three miles from Titusville, work including hard-surfaced roads, drainage canals, town-site on Indian River, etc.

Ga., Atlanta.—Southland Estates Corporation is chartered with \$100,000 capital stock to develop acreage sections; first to be developed is Westland Estates in West End, containing 247½ acres; now being subdivided; cost of street improvements, \$25,000; John P. Force, engineer in charge; main office 5th floor, Third National Bank Bldg.; work by private contract. (Recently noted.)

Tenn., Chattanooga.—West Chattanooga Land Co. increased capital stock from \$25,000 to \$250,000.

Ga., Atlanta.—Metropolitan Land Co. incorporated with \$5000 capital stock by R. E. L. Whitworth, J. L. Turner and W. J. Brown.

Ga., Savannah.—Collins Bros. Company, representing Silo Myers, purchased Cuyler tract on Waters Ave.; Mr. Myers contemplates subdividing property and developing as residential suburb; improvements to include grading, sidewalks, water supply, etc.; proposes to erect residences.

N. C., North Wilkesboro.—Brushy Mountain Fruit & Development Co. organized to exploit fruit orchards; A. S. Capehart to be president; further information not available at present. (Recently noted incorporated with \$50,000 capital stock.)

N. C., Round Knob (not a postoffice).—Round Knob Park Co., George T. Pinny, sec-

retary, High Point, N. C., will develop 100 acres of land for colonization purposes; erect cottages, hotel, etc.

Tenn., Chattanooga.—West Chattanooga Land Co. incorporated with \$25,000 capital stock by M. S. Grady, J. C. Hibbits, J. F. McNutt, D. S. Snodgrass, O. E. Pooler and J. H. Hitt.

Tenn., Mayland.—Welfare Company chartered with \$1,500,000 capital stock and offices at 68 W. Washington St., Chicago, Ill.; president, Hugh Calvin Smith; vice-president and general manager, H. B. Asa; secretary, E. B. Trubey; purchased 10,000 acres land on Cumberland plateau and will establish Masonic community known as Welfare Park; will construct 300-acre lake in center of tract and stock with fish, lay off park, cultivate flowers, build cement-block hotel, erect bathhouse, grow fruits, construct roads, establish cannery and pottery, etc.; engineer in charge is now preparing for improvements; John Aust, Nashville, Tenn., represents company.

Tenn., Memphis.—Lamar Heights Co., Central Bank Bldg., will purchase and grade property; construct streets and sidewalks; cost \$20,000; date of opening bids not set; engineer not selected; John P. Bullington, president; W. H. Wood, vice-president; L. K. Peete, secretary-treasurer. (Recently reported incorporated with \$25,000 capital stock.)

Tex., Beaumont.—City voted issuance of \$60,000 park bonds. Address The Mayor. (Recently mentioned.)

Tex., Dalhart.—Shindler Farm Improvement Co. incorporated with \$7000 capital stock by Herbert Shindler, R. T. Shindler and R. C. Shindler.

Tex., Galveston.—H. C. Bancroft purchased 250 acres of Eureka orchards and contemplates further development.

Va., Langley.—Joseph Leiter, 1500 New Hampshire Ave. N. W., Washington, D. C., awarded contract to R. J. Beall Construction Co., 1217 F St. N. W., Washington, D. C., for improvements to 314 acres of land recently purchased near Langley; will construct avenue 600 feet long; erect dwelling 68x135 feet with two wings, one for ballroom and guest chambers, other for kitchen and servants' quarters, etc.; plans by J. E. Price. (Recently noted.)

Va., Leesburg.—Loudoun Orchard Co. incorporated with \$50,000 capital stock; H. H. Edmondson, president; A. O. Edmondson, vice-president; S. M. McMurren, secretary; R. W. Scott, treasurer.

W. Va., Grafton.—McGraw Improvement Co. incorporated with \$200,000 capital stock by John T. McGraw, Charles R. Durkin, Abraham S. Warden, Jr., and others.

LUMBER MANUFACTURING

Ark., Gillett.—Gillett Lumber Co. of Gillett and Bluffton, O., will erect saw-mill to cut wagon material; A. E. Swinchart is president.

Fla., Miami.—McCrimmon Lumber Co. incorporated with \$30,000 capital stock; C. T. McCrimmon, president; D. F. McCrimmon, vice-president; P. A. Henderson, secretary-treasurer.

Ky., Lackey.—Beaver Valley Tie Co. incorporated with \$6000 capital stock by T. J. Craft, M. M. Pratt and others. (Recently incorrectly noted as "Telephone" Co.)

Miss., Ellisville.—Perry-Frazier Lumber Co., Hattiesburg, Miss., purchased sawmill and several million feet of long-leaf yellow pine from A. D. Anderson; contemplates erecting single band mill with daily capacity of 40,000 feet.

Miss., Hattiesburg.—L. N. Dantzler Lumber Co. purchased two tracts of timber land in Forrest county, comprising 1040 and 1380 acres, respectively.

Miss., Tylertown.—O. T. Magee Square Timber & Lumber Co. incorporated with \$300 capital stock by G. H. Collins, L. W. Felder and O. T. Magee.

Miss., Valley.—McGraw-Curran Lumber Co. incorporated with \$25,000 capital stock by Thomas McGray of Valley; M. J. Curran, Yazoo City, Miss., and S. C. Majors, Memphis, Tenn.

S. C., Charleston.—Whipple Lumber Co. incorporated with \$25,000 capital stock; G. C. Creighton, president; H. A. Molony, secretary-treasurer.

Tenn., Nashville.—Pound Gulf Lumber Co. incorporated with \$50,000 capital stock by V. B., W. D. and W. E. Talbot, Walter Parker and John H. De Witt; reported contemplates developing timber property in Grundy county near Pound Gulf.

W. Va., Kenova.—Kenova Poplar Manufac-

taring Co. will rebuild lumber plant recently reported burned.

W. Va., Mill Creek.—Wilson Lumber Co., M. N. Wilson, president, Elkins, W. Va., is proceeding with construction of hardwood lumber plant; 50x250-foot buildings to cost \$35,000; single band mill; machinery purchased; capacity, 40,000 feet daily; W. H. Mason, manager. (Previously noted.)

MINING

Ga., Cedartown.—Iron.—Anniston Iron Corporation, Anniston, Ala., leased Langden property, comprising 15,000 acres, containing iron deposits, and will develop.

N. C., Newsom.—Winston-Salem Southbound Railway, W. N. Royall, general manager, Wilmington, N. C., acquired option on Bald Mountain and will operate stone quarries to secure ballast for railway.

Okla., Chillicothe.—Iron.—Chillicothe Iron Co. incorporated with \$8000 capital stock by W. H. Ellett, A. MacDonald, C. L. Waite and others.

Okla., Granite.—Granite.—American Red Rose Granite Co., Thomas L. Eggleston, Sr., president, 505 2d St. N. W., Washington, D. C., is now receiving construction and machinery bids for plant previously described; steel 28x180-foot buildings; cost \$150,000; cutting and finishing machinery, including lathes, surfacing and sluting machines; daily output, 2500 feet dressed red rose granite; W. T. Fitzgerald, Washington, D. C., vice-president; Thomas L. Eggleston, Jr., secretary; Henry Matthias, treasurer, Kansas City, Mo. (See "Machinery Wanted.")

Okla., Miami.—Thirty-Acre Mining Co. incorporated with \$50,000 capital stock by John M. Noble, H. S. Pebbles, F. T. Cook and J. S. Mahon, all of Oklahoma City, Okla.

Tenn., Chattanooga.—Gelsmer Engineering Co. incorporated with \$10,000 capital stock by H. S. Gelsmer, S. R. Roddy, John A. Chambliss and others.

Tex., Dallas.—Ore Smelter.—Johnson County Smelting Co., S. H. Ballard, president, Tishomingo, Okla., will erect electric smelter of 100 tons capacity to handle lead, zinc and other ores; cost about \$26,000.

MISCELLANEOUS CONSTRUCTION

Ark., Conway.—Heating Plant.—Hendrix College, A. C. Miller, president, will construct central heating station. Prof. G. H. Burr is preparing plans.

Ala., Mobile.—Wharf.—Jett Bros. Construction Co. of Mobile is lowest bidder at about \$125,000 for construction of wharf and warehouse on river front between Congress and Adams Sts. for Mobile & Ohio Railroad and Southern Railway; B. A. Wood is chief engineer of Mobile & Ohio Railroad; recently mentioned. (See "Warehouses.")

Ark., Desha County.—Levees.—Proposals received by Board of State Engineers, Room 213 New Orleans Court Bldg., New Orleans, La., until noon August 21 for constructing upper and lower Lucca levee on right bank of Mississippi River in Desha county; enlargements, 50,000 cubic yards and 45,000 cubic yards. (See "Machinery Wanted.")

Fla., Tallahassee.—Canal.—Trustees Internal Improvement Fund awarded contract to Miami Construction Co., Miami, Fla., to cut Cypress Creek canal, Snake Creek canal and Snapper Creek canal; contract is for whole as a whole or for as much thereof as Trustees and Drainage Commissioners may decide to have done at rate of 10 cents per cubic yard for earth excavation and 25 cents per cubic yard for rock excavation; Col. J. O. Wright, chief drainage engineer.

Fla., Tampa.—Docks.—City contemplates voting on \$50,000 bond issue for construction of temporary docks on estuary; D. B. McKay, Mayor.

Ga., Augusta.—City has not determined on any amount of bonds for flood protection; will make announcements in due time; Nisbet Wingfield is City Engineer. (Lately mentioned.)

Ky., Henderson.—Lock and Dam.—Government will receive bids until September 7 for constructing lock and dam No. 48, Ohio River; Lytle Brown, Captain, Engineers. (See "Machinery Wanted.")

La., New Orleans.—Levee.—Board of State Engineers, New Orleans Court Bldg., will receive bids until noon August 21 for following levee construction, aggregating about 700,000 cubic yards: In Tensas Basin Levee District, right bank Mississippi River, Desha county, Ark.; Upper Lucca levee, raising and enlarging, 50,000 cubic yards; lower Lucca levee, raising and enlarging, 45,000 cubic yards; work to be done by Tensas Basin Levee District. By State contracts are: In Fifth Louisiana Levee District—

Delta to Martin levee, Madison parish, raising and enlarging, 105,000 cubic yards; Martin levee, Madison parish, raising and enlarging, 43,000 cubic yards; Biggs levee, Madison parish, raising and enlarging, 90,000 cubic yards; Reid levee, Madison parish, raising and enlarging, 55,000 cubic yards; Diamond Island levee, Madison parish, enlarging, 90,000 cubic yards; Kempe levee, Tensas parish, raising and enlarging, 40,000 cubic yards. Lafourche Levee District—Parish line to Belle Chasse levee, Plaquemines parish, raising and enlarging, 100,000 cubic yards. Grand Prairie Levee District—Church to Pinaud levee, Plaquemines parish, raising, enlargement and revetment, 25,000 cubic yards, and 2500 feet revetment; Walzer levee, Plaquemines parish, new levee, 25,000 cubic yards; Point Pleasant levee, Plaquemines parish, enlargement and revetment, 10,000 cubic yards, and 7500 feet of revetment. (See "Machinery Wanted.")

Md., Federalburg.—Dredging.—Government awarded contract to Maryland Dredging & Contracting Co., Fidelity Bldg., Baltimore, Md., to deepen Northwest branch of Nanticoke River to improve channel to Federalburg.

N. C., Shelby.—Forebay.—Double Shoals Cotton Mills will construct reinforced concrete forebay; 14x24x12 feet; Brent S. Drane, Charlotte, N. C., is engineer.

Tenn., Nashville.—Retaining Walls and Underpasses.—Louisville & Nashville Railroad, W. H. Courtenay, chief engineer, Louisville, Ky., awarded contract to Foy-Proctor Company of Nashville at about \$50,000 to con-

struct reinforced concrete retaining walls and underpasses from Eighth to Fourth Ave.; contract comprises 2200 cubic yards concrete.

Tex., Denison.—Missouri, Kansas & Texas Railway, A. M. Acheson, chief engineer, Dallas, Tex., has plans for subway under tracks at Crawford St.; cost \$20,000.

Tex., Fort Worth.—Subway.—City is having plans prepared for proposed subway connecting Lipscomb and Lamar Sts. under Texas & Pacific Railway and St. Louis & San Francisco Railroad tracks; plans will provide for double driveway separated by walk and conduit; walk will be elevated above driveway level and under it will be drainage sewer, wire conduits, gas and water pipes; about 53,000 square yards dirt will be removed.

Tex., Mexia.—Dam.—Confederate Association, F. M. Sellers, commander, contemplates construction of concrete dam across Navasota River near Jacks Creek; solid rock foundation; 100 feet long; 10 feet wide above foundation and 30 feet wide at crest.

Tex., Texas City.—Pleasure Pier.—Texas City Co. will erect pleasure pier extending into bay from foot of 9th St.; 1000 feet long with "T" head 200 feet long; upon "T" will be amusements, refreshment booths, etc.; pier also for boat landing; channel will be dredged along shore to new pier to enable lighter-draft boats to reach landing; construction begun.

Va., Norfolk.—Stone Landing.—L. Lawson of Norfolk is lowest bidder at \$550 for construction of stone boat landing and terraces at head of The Hague in Ghent; W. T. Brooke, City Engineer.

ald Co. will rebuild plant (building and machinery) reported damaged to extent of \$150,000.

Ky., Louisville.—Laundry.—Crystal Laundry Co. will erect addition and improve plant; will install additional equipment, including boilers and engines.

La., Port Chalmette, P. O. Chalmette.—Creosoting.—Creosote Supply Co., R. P. Batson, local representative, will erect additional steel tank of 600,000 gallons capacity; contract awarded to Payne & Joubert, New Orleans, La. (Previously mentioned.)

La., Port Chalmette, P. O. Chalmette.—Creosoting.—American Creosote Co., Thomas H. DeMund, resident agent, will erect two additional steel tanks, each to have capacity of 500,000 gallons; contract awarded to Murphy Iron Works, New Orleans, La.

Md., Baltimore.—Steam-heating Plant, etc.—Terminal Freezing & Heating Co. incorporated with \$1,000,000 capital stock by E. Clay Timanus, Marshall Winchester and Michael Schloss; acquires central steam-heating and cold-air plant (of Baltimore Refrigerating & Heating Co.) at 408 S. Eutaw St.; will make improvements and increase facilities as needed.

Md., Westminster.—Printing.—Mather Printing Co., 63 E. Main St., awarded contract to Charles B. Hunter to erect store and office building; two stories; 67x90 feet; one story in rear, 35x70 feet; fireproof construction; plans by Owens & Sisco, 1605 Continental Bldg., Baltimore. (Recently noted to have purchased Westminster Co.'s plant.)

Miss., Gulfport.—Coal Tipple.—Gulfport Shipping Co., H. C. Elder, superintendent,

MISCELLANEOUS ENTERPRISES

Ala., Sheffield.—Tri-cities Garage, E. E. Doud, president, recently noted incorporated with \$20,000 capital stock, completed 32x60-foot mill-construction building; will conduct general automobile repairs. (See "Machinery Wanted.")

Ala., Birmingham.—Crematory.—City contemplates construction of one or more crematories; Maury Nicholson, City Engineer.

Ala., Mulga.—Poultry Farm.—Alabama Leghorn Farms Co. incorporated with \$10,000 capital stock; Dayton Trucks, president; Lewis Walton, secretary-treasurer; Samuel Morrow, vice-president.

Fla., Jacksonville.—Printing.—New South Farm & Home Co., Charles H. Selig, president, will establish newspaper printing plant.

Fla., Leesburg.—Laundry.—Thos. W. Spicer, Box 117, is interested in contemplated establishment of steam laundry. (See "Machinery Wanted.")

Ga., Atlanta.—Machinery and Supplies.—Scott Machinery Co. (recently reported incorporated with \$10,000 capital stock) has rented building at 49 S. Forsythe St. and will deal in machinery and supplies; later will increase capital stock to \$30,000; W. L. Scott, president and manager; E. M. Scott, treasurer. (See "Machinery Wanted.")

Ga., Atlanta.—Stone.—Atlanta Stone Co. incorporated with \$10,000 capital stock by Charles B. Jamison, Frank B. Jamison and W. D. Halliwell.

Ky., Louisville.—Printing.—Louisville Her-

will erect coal tipple to handle 2000 tons of coal in 24 hours; machinery will be electrically operated, power to be supplied from electric power-house of traction company; portion of equipment has arrived; cost \$20,000.

Miss., Jackson.—Tobacco Drying and Packing.—American Tobacco Co. of Mississippi organized by Earle Brewer, Clarksdale, Miss., and others; will establish tobacco drying and packing plant to cost about \$50,000.

Mo., St. Louis.—Printing.—United Magazines Press incorporated with \$10,000 capital stock by James W. Brooks, Abraham B. Frey and Frey B. Perkins.

Mo., Springfield.—Electrical Equipment.—Electrical Equipment Co., J. T. Coon, president, 312 South St., takes over co-partnership of H. F. Ford and J. T. Coon; other officers, W. A. Coon, vice-president; H. F. Ford, secretary-treasurer. (Recently noted incorporated with \$10,000 capital stock.)

Mo., Springfield.—Fire Department.—City will vote November 21 on \$75,000 bond issue for fire department. Address The Mayor.

N. C., Asheville.—Construction.—Cathey Construction Co. incorporated with \$25,000 capital stock by Homer Cathey, H. B. Jones and F. J. Fanning.

N. C., High Point.—Garage.—S. L. Davis and J. Edward Kirkman will erect garage about 100x200 feet.

N. C., Oxford.—Tobacco.—Granville Farmers' Tobacco Co. incorporated with \$50,000 capital stock by C. M. Knott, G. H. Faucette, J. C. Howard and others.

N. C., Salisbury.—Motor Cars.—Salisbury Motor Car Co. incorporated with \$10,000 capital stock by W. F. McCanness, F. J. Murdock and W. C. Mauplin.

Okla., Chickasha.—Publishing.—Democrat Publishing Co. incorporated with \$10,000 capital stock by R. L. Glover, H. B. Holmes, Thos. J. O'Neill and others.

Okla., Delaware.—Hardware.—Delaware Hardware Co. incorporated with \$10,000 capital stock by Chester H. Lowry of Stillwater, Okla.; Charles B. Barnell and John S. Merry of Delaware.

Tenn., Memphis.—Supplies.—Maze Supply Co. incorporated with \$500 capital stock by Jack Howell, T. H. Tucker, J. A. Thomas, A. W. Bishop and W. M. L. Howell.

Tenn., Nashville.—Dry Cleaning.—Caldwell & Chapman secured permit to erect proposed building to be occupied by Swiss Dry Cleaning Co.; structure of brick, one story high.

Tex., Austin.—Abattoir.—Plans are being prepared by butchers to erect abattoir to cost \$25,000; information furnished by W. L. Vining, secretary Austin Business League.

Tex., Austin.—Stonecutting.—A. L. Gouch will install stonecutting plant; construction begun.

Tex., Beaumont.—Abattoir.—City voted issuance of \$25,000 abattoir bonds. Address The Mayor. (Recently mentioned.)

Tex., Galveston.—Printing.—Galveston News will erect fireproof building to be equipped as addition to newspaper plant; M. C. Bowden of Galveston has contract.

Va., Norfolk.—Ferry.—Virginia Railway & Power Co. contemplates, it is reported, establishment of ferry between Pine Beach and Newport News.

Va., Harrisonburg.—Publishing.—Rockingham Publishing Co. incorporated with \$25,000 capital stock; H. W. Bertram, president; James L. Avis, vice-president; C. G. Price, secretary and treasurer.

Va., South Norfolk.—Building.—Henderson Mutual Building & Bural Corporation incorporated with \$5000 capital stock; G. W. Pugh, president; A. P. Russell, vice-president; John W. Kelly, treasurer; A. H. Henderson, secretary and manager.

MISCELLANEOUS FACTORIES

Ala., Birmingham.—Bottling Works.—The Cola-Nip Company increased capital stock from \$15,000 to \$50,000 and will increase daily capacity of plant from 1300 gallons to 3000 gallons.

Ala., Birmingham.—Nut Products.—Southern Nut Products Co., S. T. Scholhar, president, 415 S. 20th St., has leased building; will manufacture; daily capacity 2000 pounds of peanut butter and 75 cases of potato chips. (Recently reported incorporated with \$5000 capital stock.)

Ala., Ragland.—Glass.—M. Bandas advises Manufacturers Record that experts' decisions are satisfactory, and plans will be ready in few days for two glass plants recently noted; details to be given later.

Ala., Gadsden.—Gas.—Tri-City Gas Co. will extend gas mains to Alabama City and Attalla, Ala.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

D. C., Washington—Aeroplanes.—Dawson Motorboat Co., Frederick Y. Dawson, president, 13 3d St. N. E., contemplates establishing aeroplane factory.

Fla., Lakeland.—William Nelms, Tampa, Fla., is promoting organization of company to establish grapefruit-juice plant.

Fla., Jacksonville—Drugs.—Cecil Wilcox, W. A. McDuff and A. S. Hubbard will probably have plans prepared by Rutledge Holmes of Jacksonville for building; six stories; 50x90 feet; fireproof; heating not determined; electric lighting; cost \$50,000; construction to begin in October or November; to be occupied by Southern Drug Manufacturing Co. (Recently noted under "Miscellaneous.")

Fla., Tampa—Cigars.—Lee Roy Myers Company, 13-17 Bay St., awarded contract to H. O. Young of Tampa to erect cigar factory; four stories; first floor of reinforced concrete; Spanish style of architecture; tile roof; ornamental tower; cost \$25,000; plans by Wallin & Young of Tampa.

Fla., Tampa—Gas.—Tampa Gas Co., John Gribbel, president, will construct gas tank 150 feet high, with diameter of 125 feet; capacity, 750,000 cubic feet; company is preparing to lay about 42 miles of additional gas mains, increasing system from 33 to 75 miles; will also enlarge and improve plant; machinery is being received. (Recently mentioned.)

Fla., Tampa—Cigars.—F. Bolano & Co. secured factory in West Tampa formerly occupied by Jose Silva & Co. and will equip for manufacturing cigars. (Company recently reported organized by F. Bolano, Adolph Seckbach and others.)

Fla., Tampa—Cigars.—P. San Martin and George Leon of Havana, Cuba, will organize company with \$100,000 capital stock to establish cigar factory; purchased factory building at 20th St. and Ninth Ave.; own tobacco plantations in Cuba.

Ga., Atlanta—Medicine.—Whitfield Medicine Co., incorporated with \$100,000 capital stock by A. S. Whitfield, J. R. Dyar and others.

Ga., Valdosta.—Bottling Works.—Crown Bottling Works will erect two-story building with frontage of 25 feet; will be equipped as bottling works.

Ky., Lexington—Tobacco.—District Board of Burley Tobacco Society is considering establishment of tobacco factory; proposes organizing company with \$2,000,000 capital stock.

Ky., Middlesboro—Gloves.—Wm. H. Gurd, care of Union Tanning Co., contemplates establishment of cotton-glove factory. (See "Machinery Wanted.")

La., Amosville—Distillery.—Premier Alcohol Co. of New York purchased river-front site 350x100 feet in Jefferson parish on which to erect whiskey and alcohol distillery; plant will have four brick buildings; three stories.

La., New Orleans—Merchandise, etc.—General Business Co., incorporated with \$600,000 capital stock to manufacture and deal in merchandise, etc.; Emile Bienvenu, president; H. F. Cameron, vice-president; Terrence Himel, secretary; J. Wilfred Gaidry, treasurer.

La., New Orleans—Window Shades, etc.—Columbia Shade Cloth Co., 1525-1529 Canal St., contemplates enlargement of plant.

Md., Baltimore—Cigars.—Julio Tapanes Cigar Co., incorporated with \$10,000 capital stock by Henry Vonelf, 1512 Mt. Royal Ave., Alva Hubbard and D. Eldridge Monroe.

Md., Baltimore—Musical Instruments.—Della Torre Co., incorporated with \$1000 capital stock by Walter S. Hamburger, 212 E. North Ave., Frank Della Torre and Arthur S. Pleasants.

Md., Baltimore—Feldspar.—Harry E. Gilbert, Charles and Lexington Sts., is interested in plan to establish feldspar factory on water front; details not announced.

Md., Baltimore—Lime.—Robert C. Criedler & Bros., whose oyster-shell lime mill at East Falls Ave. and Fawn St. is reported burned, had completed building at Curtis Bay and were about to remove burned machinery to new plant.

Md., Cockeysville—Distillery.—Sherwood Distillery Co. will erect drying-house; cost \$25,000; Jacob Peters, president Peters & Harding Building & Contracting Co., 306 Builders' Exchange, 15 E. Fayette St., Baltimore, is contractor.

Md., Emmitsburg—Brooms.—Emmitsburg Broom Co., E. Zimmerman, president, will erect broom factory.

Miss., Ellisville—Bottling Plant.—Ellisville Ice Factory and Bottling Works plant (reported burned) will be rebuilt; J. R. Caldwell, owner.

Mo., Kansas City.—Armstrong-Bell Manu-

facturing Co., incorporated with \$10,000 capital stock by Jerry S. Armstrong, William J. Bell and Edith Armstrong.

Mo., Rich Hill—Bottling Works.—Frank Asbury contemplates enlarging bottling works.

Mo., St. Louis—Undertakers' Supplies.—Jennings-Amos Manufacturing Co. leased five-story-and-basement building, 75x107 feet, and will remodel.

Mo., St. Louis—Brewery.—Anheuser-Busch Brewing Association will erect addition to stockhouse; cost \$19,000.

Mo., St. Louis—Belting.—James W. Baynes secured permit to erect three-story factory building to cost \$40,000; will be occupied by Byrnes Belting Co.

N. C., Greensboro—Aeroplanes, etc.—Lindsey Hopkins Aviation Co., 230 Peachtree St., Atlanta, Ga., will sell machines, make contracts for fairs, etc.; plans eventually to manufacture aeroplanes. (Recently noted incorporated with \$30,000 capital stock.)

Okl., Davenport.—Gloves, etc.—W. W. Baker and W. B. Moore will establish glove and garment factory; equipment purchased.

Tex., Austin—Pipes.—Company is being organized to manufacture enclash pipes; information furnished by W. L. Vining, secretary Austin Business League.

Tex., Austin—Bakery.—National Biscuit Co., New York, plans erection of building.

Tex., Cuero—Bottling Works.—Thormahlin & Meyer will erect bottling works.

Tex., El Paso—Coffee.—McMath Coffee Co., incorporated with \$5000 capital stock by W. S. McMath, A. H. Anderson and S. S. Hunter.

Tex., Jacksonville—Saddles.—Cherokee Saddlery & Harness Co. organized with \$30,000 capital stock to manufacture saddles and harness.

Va., Great Gate, P. O. Narrows.—Walter Graham contemplates establishment of creamery, etc. (See "Ice and Cold-storage Plants" and "Machinery Wanted.")

Va., Norfolk—Gas.—Pintsch Compressing Co., 2 Rector St., New York, contemplates establishing gas plant; proposes mainly to furnish gas to Pullman cars entering union station in course of construction on Main St.

Va., Norfolk—Lime Works.—T. C. Andrews & Co., 10 Campbell's Wharf, purchased waterfront property 800x120 feet for \$32,000 and will operate lime plant 150x50 feet; has eight kilns in operation; daily capacity, 50 tons of lime, etc.; will open bids October 1 for additional grinders, conveyors and screens. (See "Machinery Wanted.")

Va., Petersburg—Rubber Tires.—Seward Rubber Tire Co., incorporated with \$50,000 capital stock; Joseph W. Seward, president; P. G. Seward, secretary and treasurer.

Va., Richmond—Paper and Paper Boxes.—Richmond Corrugated Paper Co., incorporated with \$20,000 capital stock; H. P. Nivison, president; W. H. Adams, vice-president; B. W. Wilson, secretary-treasurer.

W. Va., Clarksburg—Candy.—Hart Candy Co. will install machinery to manufacture candy. (See "Machinery Wanted.")

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ga., Atlanta—Georgia Railway & Electric Co. awarded contract to George A. Clayton to erect proposed shop; one story; 140x240 feet; fireproof construction; cost \$50,000; plans by Morgan & Dillon, Atlanta.

Ky., Louisville.—Louisville Railway Co. purchased 10 acres on which to erect car-house.

Md., Baltimore.—Western Maryland Railway Co., H. R. Pratt, chief engineer, Hillen Station, plans increasing freight-yard facilities at Port Covington (on water front) from 2000 to 3000 cars; will construct two additional piers at Port Covington; erect warehouse, enlarge engine-house and install turntable at Hillen Station; details will soon be considered; from \$500,000 to \$700,000 will be expended. (Lately mentioned.)

Tex., Greenville.—Missouri, Kansas & Texas Railway, A. M. Acheson, chief engineer, Dallas, Tex., contemplates improvements, it is reported, including shops, roundhouse, car sheds, freight depot, rearrangement of trackage, etc.; estimated cost \$125,000.

Va., Langley.—Joseph N. Leiter, 1500 New Hampshire Ave. N. W., will construct avenue 6000 feet long; 30 feet wide. (See "Land Developments.")

W. Va., Grafton.—Baltimore & Ohio Railroad Co., F. L. Stuart, chief engineer, Baltimore, Md., awarded contract to George B. Swift Company, Security Bldg., Chicago, Ill., to construct machine and carpenter shop,

material platform, locker, etc.; fireproof construction; cost \$20,000. (Recently noted under "Foundry and Machine Shops.")

ROAD AND STREET WORK

Ala., Attalla.—City awarded contract to Peckinpaugh & Co., Sheffield, Ala., at \$19,500 to construct additional sidewalks.

Ala., Birmingham.—City Commissioners awarded following contracts for street paving: H. N. Bowdry, at \$2960.50 for gutter and sidewalk curbing near Phelan St., and \$2942 for bituminous macadam paving at S. 13th St.; C. N. Burkhalter, at \$4713.75 for gutter and sidewalk at West End, and at \$2350 for curbing, gutter and sidewalk paving in southern section of city.

Ala., Scottsboro.—Jackson county voted \$300,000 bond issue for road construction and improvement. Address County Commissioners.

Ala., Tusculum.—City Council passed ordinance providing for cement sidewalks on each side of street approaching new Southern Railway station. Address The Mayor.

Ark., Benton.—City will construct six miles of concrete sidewalks within 12 months; work will include two miles on both sides of Market St. and 12-foot walk entirely around courthouse square. Address The Mayor.

Ark., Helena.—Hugh Martin, Mayor, states paving districts Nos. 5 and 6 will be formed; paving bids will be advertised late in August; district No. 6 will construct paving on Biscoe and Arkansas Sts. recently noted to be done by city.

Ark., Little Rock.—Oakland Cemetery Board, C. J. Kramer, president, will lay 3000 feet of curb guttering; bids received until August 29. (See "Machinery Wanted.")

Ark., Marianna.—Lee county will soon begin improvement of four leading roads from Marianna; W. B. Knox, engineer, has made surveys and planned all work to be undertaken, estimated at 150 miles of main roads; Mr. Knox will have immediate control and supervision; \$100,000 bond issue available. (Recently mentioned.)

Fla., De Funiak Springs.—Walton county voted \$70,000 bond issue for road construction. Address County Commissioners.

Fla., Bartow.—Polk county will vote October 10 on \$500,000 bond issue for road construction, aggregating 273 miles. Address County Commissioners.

Fla., Fernandina.—Districts Nos. 1, 2 and 3 of Nassau county will vote September 12 on \$60,000 bond issue for construction of road and bridge to middle of Nassau River as Nassau's share in hard road to Jacksonville. Address County Commissioners.

Fla., Jacksonville.—City will open bids September 5 for repaving Bay St., between Bridge and Market Sts., recently noted; 23,388 square yards; Philip Prileau, City Engineer. (See "Machinery Wanted.")

Fla., Marianna.—Jackson county will construct sand and clay hard-surface roads; W. A. McTae, clerk. (\$300,000 bond issue recently noted voted.)

Fla., Palmetto.—City voted \$20,000 bond issue for paving and water-works; will vote in September on \$5000 additional bond issue for paving; W. B. Whitehead, Mayor.

Fla., Seabreeze.—City awarded contract to W. C. Cannons through his agent, C. A. Kenney, to shell Halifax extension north to city limits; Mr. Cannons sublet contract to Randall & Haigh.

Fla., Tampa.—City contemplates voting on \$700,000 bond issue for street paving; D. B. McKay, Mayor.

Ga., Greensboro.—Greene county will vote in October on bond issue for road construction. Address County Commissioners.

Ga., Leesburg.—Lee county is considering bond issue for road construction. Address County Commissioners.

Ga., Oglethorpe.—Macon county deferred election to vote on \$150,000 bond issue for road construction; C. A. Powell, clerk. (Recently noted.)

La., Pointe a la Hache.—M. Garsaud is lowest bidder at \$119,821.25 to construct shell road from St. Bernard parish line to Pointe a la Hache, 33 miles; probable that State Highway Commission, New Orleans, La., and Plaquemines Parish Police Jury will decide to make road two feet narrower than called for in specifications, thereby reducing cost to \$103,000. (Recently mentioned.)

Ga., Washington.—City will pave portion of Main St. Address The Mayor.

Ky., Henderson.—City awarded contract to Capital City Construction Co., 241 Fourth Ave. N., Nashville, Tenn., at \$23,000 to construct five miles of curb, gutter and sidewalk; Portland cement; Mr. Ball, City Engineer.

Ky., Lexington.—City awarded contract to Carey & Reed, Lexington, to pave Maxwell St. from Woodland Ave. to High St.; about 23,000 square yards paving; concrete curbing; John Skain, Mayor. (Call for bids lately noted.)

Ky., Russellville.—Logan county will construct Jefferson Davis highway through county; will build two routes, one connecting with Lincoln Way at Bowling Green and one connecting with Franklin route, both passing through Russellville and westwardly to Todd county line. Address County Commissioners.

La., Franklin.—City will construct about 97,000 square feet sidewalk paving and 48,000 square feet curbing; will receive bids until August 21. Address Mayor Peterman.

La., Franklinton.—Washington Parish Police Jury extended three-year contract awarded to Boyd & Bradshaw for maintenance of 340 miles of road to 550 miles. (Contract for 300 miles recently reported awarded.)

La., Hammond.—City awarded contract to Mr. Reynolds of Reynolds & Ligon, Beaumont, Tex., to construct 6½ miles of concrete sidewalks; M. C. Wilson, Mayor. (Call for bids lately noted.)

La., Mansfield.—City awarded contract to E. L. Andrews, Alexandria, La., at about \$14,000 to pave four miles of concrete sidewalks.

La., New Iberia.—City is considering bond issue for paving Main St. through central portion of city. Address The Mayor.

Md., Brunswick.—City contemplates street improvements; \$5000 available; 14,000 square yards paving proposed; filled macadam; no engineer at present; bids not now invited, considering improvements to cost \$12,000; A. B. Hedges, clerk and treasurer.

Md., Baltimore.—City will grade, pave and curb Guilford Ave. from 23d St. to 24th St. with sheet asphalt, partly on four-inch concrete base and partly on present cobblestone surface; will receive bids until August 23; B. T. Fendall, City Engineer. (See "Machinery Wanted.")

Miss., Aberdeen.—Road Commissioners, Supervisor's District No. 4 of Monroe county, will receive bids until 2 P. M. September 5 at office of Chancery Clerk for construction of grades and drainage, culverts and tilling on Aberdeen and Prairie Station, Aberdeen and Egypt, Aberdeen and Gibson, Strong Station and new Muldon roads; plans, specifications, etc., on file at office of clerk of Board of Supervisors and of L. G. Smith, engineer, Aberdeen. (See "Machinery Wanted.")

Miss., Bay St. Louis.—City will issue \$50,000 of bonds to protect streets from overflow, caving banks, etc., and for purchase of site on which to erect school building. Address The Mayor.

Miss., Brookhaven.—Highway Commissioners of District No. 1, Lincoln county, H. Cassey, chairman, awarded contract to Worthington Construction Co. of Brookhaven to grade and gravel 28 miles of road and construct necessary bridge and culverts; roads to be surfaced 14 and 9 feet; about 110,000 cubic yards grading; 168,500 square yards gravel surface; 800 yards concrete; 1600 linear feet vitrified pipe; District No. 1 has authorized \$150,000 bond issue for construction of total of 70 miles of road. (Call for bids lately noted.)

Miss., New Albany.—Road Commissioners for First, Second and Third districts, Union County, W. G. Blas, chairman, are asking bids on road work previously noted; construction and maintenance of about 150 miles sand-clay roads; bids opened August 25 and August 29; \$50,000 available at present; A. C. Sojourner, highway engineer. (See "Machinery Wanted.")

N. C., Taylorsville.—Taylorsville and Ellendale townships of Alexander county will construct three miles of road, beginning at Taylorsville and extending towards Lenoir, N. C.; O. F. Pool will superintend construction.

N. C., Fayetteville.—Cumberland county will vote November 14 on \$200,000 bond issue for road construction. Address County Commissioners.

N. C., Newbern.—City awarded contract to F. J. McGuire to pave lower Pollock and East Front Sts. with Tarvia macadam.

N. C., Newton.—Catawba County Commissioners appropriated \$50 per mile for central highway; ordered County Engineer to survey route from Mooresville River bridge to Newton; board also arranged to improve Buffalo Shoals Rd., connecting with New River bridge from Statesville; J. E. Bort of Hickory, N. C., will probably be engineer in charge.

N. C., Winston-Salem.—City voted \$75,000 bond issue for street improvements; will grade and curb several miles; also pave sev-

eral streets with macadam and Belgian block; Rufus I. Dalton, Mayor. (Recently noted.)

Okla., Bennington.—Town will construct concrete sidewalks. Address Town Clerk.

Okla., Chickasha.—Grady County Commissioners authorized \$40,000 bond issue for road construction.

Okla., Tulsa.—City votes August 15 on \$12,000 bond issue for street improvements; J. J. Martin, Mayor.

Okla., Tulsa.—Tulsa county will vote September 19 on \$500,000 bond issue for road construction. Address County Commissioners. (Recently mentioned.)

S. C., Aiken.—City receives bids until 4 P. M. August 31 for about 7300 square yards street paving; vitrified brick with concrete base, or asphalt; plans, etc., at office of J. L. McCarter, City Clerk. (See "Machinery Wanted.")

S. C., Columbia.—Columbia-Sumter Highway Association organized with \$3000 capital stock to construct road and ferry across swamp; T. H. Auld, president, Eastover, S. C.; L. D. Jennings, vice-president, Sumter, S. C.; J. P. Lowery, secretary-treasurer, Eastover, S. C.; H. G. Bates, manager, Eastover, S. C.

Tenn., Carthage.—Smith county voted on \$20,000 bond issue for road improvements. Address County Commissioners.

Tenn., Jonesboro.—Washington County Court voted \$60,000 bond issue to construct that portion of Bristol-to-Memphis highway extending through county. Address County Commissioners.

Tenn., Johnson City.—City will construct 2,000 square yards of street paving in improvement Districts Nos. 7 and 8, including necessary bridges, sewers, storm-water drains, etc.; P. F. McDonald, City Commissioner; William R. Ponder, Recorder. (Recently noted. See "Machinery Wanted.")

Tenn., Knoxville.—Road Commissioners rejected all bids for repairing Straw Plains pike recently noted; proposals now out for repairing Dry Gap, Island Home, Martin Hill and Pickens Gap pikes; also grading portions of Cardwell, West Emory and Emory roads; G. W. Pearsall, County Engineer. (See "Machinery Wanted.")

Tenn., Maryville.—Blount County Commissioners, T. F. Cooper, chairman, awarded contract to Mann Construction Co., Empire Bldg., Knoxville, Tenn., at about \$200,000 and to Thomas J. O'Connor of Knoxville at about \$150,000 to grade and macadamize about 85 miles of road; contract awarded to former company is mainly for work on Maryville to Knoxville line, and that awarded to Mr. O'Connor is principally in northeastern section of county, leading to Walland and Sevierville; only portion of this work is macadamizing, and large part is for grading only. (Call for bids lately noted.)

Tenn., Rutledge.—Grainger county will grade 15 miles of road; bids received until August 19; A. M. Nance, secretary Road Commission. (See "Machinery Wanted.")

Tenn., Somerville.—Fayette county is considering construction of road from Somerville to Memphis via Taylor's Chapel. Address County Commissioners.

Tenn., Waynesboro.—Southern Nashville to Jackson Highway Association organized with J. W. Garrett president and T. S. Hughes vice-president; will construct road by Southern route from Nashville to Jackson, Tenn.

Tex., Bastrop.—City will macadamize three main streets; engineer engaged to prepare plans and specifications and submit estimate of cost. Address The Mayor.

Tex., Beaumont.—City voted issuance of \$25,000 paving bonds. Address The Mayor. (Recently mentioned.)

Tex., Bonham.—City will pave Main St. with asphalt; also contemplates additional paving. Address The Mayor.

Tex., Cold Spring.—San Jacinto county voted \$10,500 bond issue for road construction. Address County Commissioners.

Tex., Granger.—City voted \$15,000 for street improvements; this amount included, will have \$45,000 available; contemplates construction of four blocks vitrified brick paving in business district and about 10 blocks macadam in residence district; L. E. Sheffield, Mayor. (Recently noted.)

Tex., Longview.—City awarded contract to Roach & Manigan, Memphis, Tenn., to construct about 17,000 square yards pavement; cost about \$60,000; Aetna Engineering Bureau, 17 N. LaSalle St., Chicago, Ill., consulting engineer; G. D. Bodenheimer, Mayor. (Call for bids lately noted.)

Tex., Marquez.—Justice Precinct No. 7 of Leon county voted \$30,000 bond issue for road construction. Address County Commissioners, Centerville, Tex.

Tex., Marlin.—Precinct No. 1 of Falls county is considering issuance of \$250,000 road bonds. Address County Commissioners.

Tex., San Antonio.—Bexar County Highway League (recently noted incorporated by R. H. Wester, G. A. C. Half and others) proposes construction of automobile road from San Antonio to Gulf of Mexico, passing through Bexar, Wilson, Karnes, Bee and St. Patricio to Corpus Christi; about 10 miles from Corpus Christi road will connect with Gulf Coast road now being constructed; Wilson county plans building road from main line to Sutherland Springs and then to Floresville, where it will join main line of San Antonio to Gulf road, forming a loop of 75 miles; road through St. Patricio county will be built of shells at cost of \$600 per mile; cost of road in Wilson, Karnes and Bee counties, \$1800 per mile; W. L. Hawkins has been engaged as consulting engineer.

Tex., Tilden.—Commissioners' Court will vote September 2 on \$35,000 bond issue to construct roads.

Va., Bristol.—Bristol-to-Washington Highway Association organized with W. H. Aston, president, Meadow View, Va.; M. D. Corse, Lexington, Va., and J. H. Marsteller, Roanoke, Va., vice-presidents, and Forest M. Rannels of Bristol, secretary-treasurer; will construct stone highway from Bristol to Washington.

Va., Buchanan.—City will macadamize Main St. from bridge to corporate limits. Address The Mayor.

Va., Portsmouth.—City will construct combined concrete curb and gutter on Pearl St. between County and South Sts.; bids received until August 18; Bascom Sykes, engineer. (See "Machinery Wanted.")

Va., Tazewell.—Supervisors of Tazewell County will construct 25 miles of macadam road in Clear Fork, Jeffersonville and Maiden Spring districts recently noted; F. Thompson, chairman. (See "Machinery Wanted.")

Va., Spotsylvania.—Berkeley district of Spotsylvania county will petition Circuit Court for authority to vote on \$30,000 bond issue to improve 26 miles of road. Address County Commissioners.

W. Va., Fayetteville.—City will construct concrete or cement sidewalks; 2417 linear feet, 5 feet wide; 1836 linear feet, 4½ feet wide; 5421 linear feet, 4 feet wide; 2175 linear feet, 3½ feet wide; 3324 linear feet, 3 feet wide; bids received until September 2; R. H. Dickinson, Mayor. (See "Machinery Wanted.")

W. Va., Grafton.—City will pave W. Main and Luzadder Sts. probably with Belgian blocks; A. F. McWilliams, Mayor.

W. Va., Ronceverte.—City awarded contract to Ullom & Scanlon, Huntington, W. Va., for street paving; Leete & Maupin Engineering Co., Huntington, W. Va., prepared plans; J. George Reynolds, City Clerk. (Call for bids lately noted.)

W. Va., Talcott.—Talcott district of Summers county voted \$55,000 bond issue for road improvements and free bridges. Address District Commissioners.

SEWER CONSTRUCTION

Ala., Birmingham.—City Commissioners awarded contract at \$1439.08 to H. N. Bowdry to construct sanitary sewer near Corey.

Ark., Clarksville.—City is having plans prepared by R. L. Goodman for sewer system; will vote on \$75,000 bond issue for sewer system, water-works and electric-light plant. (Recently mentioned.)

Ark., Malvern.—City Council granted franchise to R. R. Chamberlain and associates to construct sewer system.

Ark., Prescott.—Sewer Improvement District No. 1, M. W. Greeson, secretary Board of Commissioners, opens bids at 1.30 P. M. September 6 for sewer construction recently noted; 25,500 cubic yards excavation, 49,000 linear feet sewer pipe, 120 manholes and a sewer-treating plant; James W. Beebe, engineer, Poteau, Okla. (See "Machinery Wanted.")

Fla., Palmetto.—City will vote in September on \$5000 sewer bonds; W. B. Whitehead, Mayor.

Fla., Tampa.—City contemplates voting on \$350,000 bond issue for sewer construction; wants to engage engineer; D. B. McKay, Mayor; recently noted. (See "Machinery Wanted.")

Ga., Savannah.—City will vote December 6 on \$600,000 bond issue to extend and complete house drainage and sewerage system; drainage commission composed of Leopold Adler, Craig Barrow, G. A. Gordon and others; J. W. Howard, City Engineer. (Recently mentioned.)

La., Donaldsonville.—City contemplates

construction of sewer system; Charles Maurin, Mayor.

Ky., Pineville.—City will construct tile sewer 12 inches in diameter on Virginia Ave.; bids will be invited; N. R. Patterson, Mayor.

La., Kentwood.—Town voted \$50,000 bond issue to construct sewer and water systems; W. D. Walsh, Mayor.

La., New Iberia.—City is considering bond issue for sewer construction. Address The Mayor.

Md., Baltimore.—City will receive bids until September 6 for constructing sanitary lateral sewers in District 20-B, sanitary contract No. 74; constructing section No. 4 of high-level interceptor, sanitary contract No. 75, and for building storm-water drains, storm-water contract No. 13; Charles England, chairman Sewerage Commission, American Bldg., Baltimore. (See "Machinery Wanted.")

Md., Baltimore.—Elkan-Tufts Construction Co. (M. M. Elkan of Macon, Ga.; Arthur Tufts and R. B. Tufts of Atlanta, Ga.), 722 E. Pratt St., has begun construction of storm-water drains in bed of Falls, for which contract was recently awarded at \$533,590 to Mr. Elkan; company has contracted for 53,000 barrels of Portland cement and 2000 tons reinforcing steel; will contract for 40 tons structural steel, 140,000 feet piling, 2000 feet foundation lumber, 50 tons cast-iron pipe, 900 linear feet vitrified sewer pipe, sand, gravel, concrete mixers, pile drivers, excavators, hoists, etc.; will excavate 28,000 cubic yards earth and 900 cubic yards rock, and construct reinforced-concrete sewer 2800 feet long of three parallel conduits each 23 feet wide and 15 feet high; sewer will be surfaced for boulevard 68 feet wide; city officials will consider arrangements for this paving in future. (Lately mentioned.)

Miss., Clarksdale.—City Commissioners receive bids until 8 P. M. September 5 on materials for and construction of sewer extension recently noted; plans, blanks, etc., at office of W. S. Bobo, general city superintendent. (See "Machinery Wanted.")

Mo., California.—City is having plans prepared by Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., for sewer system.

Mo., Kansas City.—Board of Public Works awarded contract to R. J. & W. M. Boyd Construction Co. at \$22,154 to construct sanitary sewer to drain district bounded by Independence Ave. and Norledge Pl. and Topping and Belmont Aves.

Mo., Springfield.—City will vote November 21 on \$100,000 bond issue for sewer system and \$100,000 bond issue for septic tank. Address The Mayor.

Mo., Shelbina.—E. J. King, City Clerk, will receive bids until 3 P. M. August 25 for constructing sewer system; plans, etc., on file with City Clerk or may be obtained from Burns & McDonnell, engineers, Scarritt Bldg., Mo.; James F. Alligier, Mayor. (Recently mentioned.)

N. C., Newbern.—City will construct sewer on Short St. Address The Mayor.

N. C., Rocky Mount.—City contemplates construction of \$8000 sewer system for Villa Pl. in Fourth ward and similar system for Gibson Hill ward. Address Mayor Ramsey.

N. C., Winston-Salem.—City voted \$85,000 bond issue for extension of sewer system; plans include sewerage eastern part of city, construction of several-mile main outlet sewer, in western part, to Peter's Creek, and sewer from present hospital; Rufus I. Dalton, Mayor.

Okla., Hollis.—City awarded contract to Kennedy & Fleming, Oklahoma City, Okla., for installation of sewer and water system; bonds aggregate \$72,000.

Okla., Tulsa.—City votes August 15 on \$100,000 bond issue for construction of sanitary main, submain and storm sewer; L. J. Martin, Mayor.

Okla., Tulsa.—City will construct storm sewer 6½ feet in diameter in eastern section of city from Oak Lawn Cemetery to 7th and Landing Sts.; day labor under supervision of Samuel Patton, Sewer Inspector.

S. C., Rock Hill.—City will construct three sewerage disposal plants recently noted; bids received until September 15; Thomas W. Cothran, engineer, Rock Hill. (See "Machinery Wanted.")

Tenn., Nashville.—City awarded contract to E. T. Lewis Company of Nashville at \$179,622.95 to construct about seven miles circular brick trunk sewers ranging from 30 inches to 111 inches; work will include 81,000 cubic yards of both earth and rock excavation and 13,000,000 brick. (Call for bids lately noted.)

Tex., Beaumont.—City voted issuance of \$50,000 sewer bonds. Address The Mayor. (Recently mentioned.)

Tex., Bryan.—City will vote August 21 on \$5000 bond issue for extension of sewer system; J. T. Maloney, Mayor.

Tex., Calvert.—City contemplates voting on \$35,000 bond issue for improvements to sewer system and water-works. Address The Mayor.

Tex., Dallas.—City Commission awarded contract to Joseph B. Winslett, Jr., of Dallas at \$9466.50 to construct storm sewer through Winnetka Heights; City Engineer was instructed to prepare plans and J. B. Winslett, City Secretary, to advertise for bids to construct storm sewer in Live Oak St. from Haskell Ave. to Peak St. (Recently mentioned.)

Tex., Polytechnic.—S. S. Dillow, R. M. Bucy and others are promoting organization of company with \$10,000 capital stock to construct sewer system for Polytechnic Heights; John Meade, engineer, Fort Worth, Tex., submitted plans for system estimated to cost \$3000.

Va., Lawrenceville.—City voted \$50,000 bond issue for construction of sewer system, water-works and electric plant; engineer, J. B. McCrary Company, 1311 Empire Bldg., Atlanta, Ga.

Va., Chase City.—City is prepared to let franchise for installation of sewerage system; R. D. Patterson, president Commercial Club. (See "Water-works" and "Machinery Wanted.")

Va., Richmond.—City will construct concrete walls and invert for open sewer in Macon Quarter Branch; bids received until August 16; Charles E. Bolling, City Engineer. (See "Machinery Wanted.")

W. Va., Huntington.—City Commissioners awarded contract to Ullom & Scanlon at \$15,564.29 to construct sewers in Ninth Ave., 7th St., Washington and Virginia Aves., and to L. J. Gillespie at \$6847 to construct sewer in Railroad Ave. and W. 9th St.; vitrified tile piling, 12, 15 and 18 inches in diameter; John Coon, Commissioner of Streets. (Call for bids lately noted.)

TELEPHONE SYSTEMS

Ga., Swan.—Swan Telephone Co., G. W. Tarpley, secretary-treasurer (recently noted incorporated with \$5000 capital stock), operates 30-mile main line; building branch lines; all material and construction arranged for. (Recently noted incorporated with \$5000 capital stock.)

Ga., West Point.—J. Lanier Smith has plans by A. F. N. Everett, Grand Bldg., Atlanta, Ga., for telephone exchange; 25x20 feet; two stories; mill construction; press brick; tile roof; cost \$2500. Address architect.

Ky., Paducah.—West Kentucky Long Distance Telephone Co. incorporated by L. G. Griffiths, Louisville, Ky., and others; will construct telephone system between Paducah and Cairo, Ill.

N. C., Gastonia.—Gaston County Farmers' Union organized Gaston Rural Telephone Co. to construct telephone system.

N. C., Hickory.—Hop Creek & Baker's Mountain Phone Co. organized with J. F. Abernathy president, J. I. Weaver vice-president, J. O. Wiant secretary-treasurer; will construct rural telephone system.

Tenn., Knoxville.—East Tennessee Telephone Co., Leland Hume, general manager, will install common battery telephone system.

Tex., Corpus Christi.—Southwestern Telegraph & Telephone Co., Dallas, Tex., awarded contract to F. A. Jones Building Co., Corpus Christi, to erect central exchange building; 35x50 feet; fireproof construction; cost \$15,000; plans by Sanguinette & Staats, Fort Worth, Tex. (Recently noted.)

Tex., Palestine.—Company organized with W. R. Boykin, president, and D. B. Boykin, general manager; controls line from Crystal Lake to Alder Branch, and contemplates extensions.

Tex., San Angelo.—San Angelo Telephone Co. will lay 20,000 feet of conduit under Cuadbourne St.; system to supply 12,000 telephones.

TEXTILE MILLS

Ala., Fort Payne—Hosley.—Davis Hosley Mills will install additional machinery; now has 100 knitting machines, etc.

Mo., St. Louis—Bleachery.—Lowell Bleachery, Lowell, Mass., will take up option on river-front land and obtain option on adjoining tract as site for branch bleachery; will not begin building within nine months or year. (Previously noted.)

N. C., Haw River—Hosliery.—Regina Hosliery Manufacturing Co. will erect additional building, 50x150 feet; brick; construction begun; now has 55 knitting machines, etc.

S. C., Fairmont—Print Cloth.—Fairmont Manufacturing Co. will add 1500 spindles and 40 looms; installation begun.

S. C., Fork Shoals—Lotton Goods.—Katrim Manufacturing Co. has organized with \$50,000 capital stock and B. E. Geer as president-treasurer, Henry Briggs vice-president, William Goldsmith secretary; office at Greenville, S. C. (Recently reported incorporated.)

S. C., Graniteville—Sheeting, etc.—Graniteville Manufacturing Co. will increase power for Graniteville No. 1 by using electric drive from Hickman Mill No. 3, where it will install generator and use steam turbines; will replace 10,000 mule spindles with 10,000 ring spindles, and add 5000 ring spindles, 12 or 15 cards and intermediate machinery. (Recently reported to improve power plant and add new textile machinery.)

Tex., Dallas—Cotton Twine.—George Garrett, Jones Bldg., Detroit, Mich., contemplates establishing cotton wrapping-twine mill. (See "Machinery Wanted.")

Tex., Spofford—Cotton Goods.—Judge D. B. Chapin of Brownsville, Tex., and New England associates are reported as planning erection of cotton mill in connection with Judge Chapin's plan (recently detailed) for constructing dam to irrigate 125,000 to 150,000 acres land.

WATER-WORKS

Ala., Stevenson.—City engaged J. B. McCrary Company, 1311 Empire Bldg., Atlanta, Ga., to prepare plans and estimates for water and electric plant. (Recently noted.)

Fla., Palmetto.—City voted \$20,000 bond issue for water-works and paving; will vote in September on \$5000 additional bond issue for water-works. W. B. Whitehead, Mayor.

Ark., Clarksville.—City is having plans prepared by R. L. Goodman for water-works; two wells to furnish supply; will vote on \$75,000 bond issue for water-works, sewerage system and electric-light plant. (Recently mentioned.)

Ark., Little Rock.—Oakland Cemetery Board, C. J. Kramer, president, will lay about 1000 feet one-inch galvanized water pipe; receives bids until August 29. (See "Machinery Wanted.")

Ark., Malvern.—City Council granted franchise to R. B. Chamberlain and associates to construct water-works.

Ark., Walnut Ridge.—City voted on construction of water-works. Address The Mayor.

Fla., Fort McCoy.—George Rentz contemplates constructing water-works. (See "Ice and Cold-Storage Plants.")

Fla., Tampa.—City contemplates voting on \$500,000 bond issue to purchase water-works or construct plant; D. B. McKay, Mayor. (Recently mentioned.)

Ga., Americus.—City awarded contract to A. J. Wardrop at \$482 to construct reinforced-concrete reservoir 60 feet in diameter and 13 feet deep; J. B. Ausley, City Engineer. (Call for bids lately noted.)

Ga., Augusta.—City will improve water-works; contemplates expending \$150,000 within next two years; Nisbet Wingfield is Commissioner Public Works.

Ky., Williamsburg.—City will vote in November on \$30,000 bond issue for water-works. Address The Mayor.

La., New Orleans—Sewerage and Water Board contemplates extension of water mains to Gentilly Ter.; Martin Behrman, Mayor.

La., Franklinton.—C. A. Jenkins and W. E. Banister appointed committee to erect 40,000-gallon water tank on Courthouse Sq.; supply from artesian well water.

La., Kentwood.—Town voted \$50,000 bond issue to construct water-works and sewerage; W. D. Walsh, Mayor. (Recently noted.)

La., McDonoughville.—McDonoughville Water Works and Improvement Association contemplates construction of water-works.

La., Shreveport.—City and Shreveport Water Co. are considering installation of water-meter system.

Md., Smithsburg.—Washington County Water Co., Hagerstown, Md., purchased 30 acres near Smithsburg as site for reservoir.

Miss., Clarksdale.—City Commissioners receive bids until 8 P. M. September 5 on materials for and construction of water-works and sewers recently noted; plans, blanks, etc., at office of W. S. Bobo, general city superintendent. (See "Machinery Wanted.")

Mo., Granby.—City asks proposals on water-works equipment; S. L. Kenney, clerk; J. P. Michel, engineer, 11 Frisco Bldg., Joplin, Mo. (See "Machinery Wanted.")

Mo., Princeton.—City voted on \$7000 water and light extension bonds. Address The Mayor.

Mo., Shelbyville.—E. J. King, City Clerk, will receive bids until August 23 for pumping machinery, tower and tank, boilers, heater, engine, generators, filters, etc., for water-works; Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., are engineers. (Further facts lately noted.)

Mo., St. Charles.—City rejected bids for water-works improvements recently mentioned; work postponed until next spring; Carr Edwards, City Engineer.

N. C., Charlotte.—Board of Water Commissioners will open bids on August 24 for 5300 tons 24-inch cast-iron bell and spigot water pipe and about 60 tons specials; will consider alternate bids on about four miles wooden pipe; specifications, forms of proposal, etc., at office of water-works superintendent and of engineer, Gilbert C. White; water-works extension lately mentioned. (See "Machinery Wanted.")

N. C., Charlotte.—Board of Water Commissioners will lay nine miles of 24-inch water main; other work and materials will be advertised for. (See "Machinery Wanted.")

N. C., Charlotte.—City contemplates installing plant to filter Briar Creek water; 500,000 gallons capacity; will erect temporary structure to protect boiler and pump; size 40x40 feet; frame; iron sides and roofing; date of opening bids not set; no machinery; cost \$5000; Joseph Firth, City Engineer.

N. C., New Bern.—City will extend water main on George St. to Avenue A and city limits; six-inch pipe; Water and Light Committee will invite bids. Address The Mayor.

N. C., Winston-Salem.—City voted \$40,000 bond issue for extension of water mains and improvement of plant; probably extend 12-inch main from pumping station to city (three miles) and lay mains along several streets; Rufus I. Dalton, Mayor. (Previously mentioned.)

Okla., Hollis.—City awarded contract to Kennedy & Fleming, Oklahoma City, Okla., for installation of water system recently noted. (See "Sewer Construction.")

Okla., Bennington.—Town voted \$20,000 bond issue for construction of water-works; T. B. McDonald, president Board of Trustees. (Recently mentioned.)

Okla., Coweta.—City will make extension to water-works and electric-light plant; bond issue of \$20,000; C. K. Leslie may be addressed. (See "Machinery Wanted.")

Okla., Muskogee.—City will install water meters; will receive bids for furnishing same until August 15; requires 50 1" meters, 100 3/4" meters and 2000 5/8" meters; Alexander Potter, consulting engineer, 114 Liberty St., New York; E. H. Fleming, Commissioner Water, Sewer and Light Committee. (See "Machinery Wanted.")

Okla., Tulsa.—City votes August 15 on \$90,000 bond issue for improving, extending and maintaining municipal water-works; L. J. Martin, Mayor.

Okla., Wainwright.—City voted \$20,000 bond issue for construction of water-works system. Address The Mayor. (See "Machinery Wanted.")

Okla., Waynoka.—City awarded contract to Oklahoma Engineering Co., Anadarko, Okla., to construct water-works and electric-light plant; contract price \$24,475; William Haviland, Alva, Okla., engineer. (Recently noted.)

S. C., Honea Path.—Board of Public Works, John F. Monroe, chairman, will receive bids until September 5 for construction of water-works recently noted; capacity 100,000 gallons; erect pumping station; cost \$26,000; engineer, Thos. W. Cotran, Greenwood, S. C. (See "Machinery Wanted.")

Tex., Alvin.—Alvin Ice, Light & Power Co. will construct water-works recently mentioned; Randall-Lovegrove-Wyman, First National Bank Bldg., Houston, Tex., engineer in charge; L. H. Wallis is not one of Alvin company's incorporators, as lately noted.

Tex., Bryan.—City will vote August 21 on \$8000 bond issue for extension of water-works; J. T. Maloney, Mayor. (Recently noted.)

Tex., Calvert.—City contemplates voting on \$35,000 bond issue for water-works and sewerage system improvements. Address The Mayor.

Tex., Celeste.—People's Water Co. Incorporated with \$6000 capital stock by G. D. Henslee, W. C. Compton and D. R. Buchanan; will construct water-works to cost \$5000 to \$8000.

Tex., Fowlerton (not a postoffice).—Fowler

Bros. Land Co., 206 Frost Bldg., San Antonio, Tex., will not construct water-works recently noted; will consider propositions to locate plant. (See "Machinery Wanted.")

Tex., Gunter.—Gunter Water Supply Co. incorporated with \$5175 capital stock by G. H. Snider, C. O. Crockett and C. B. Polk; will construct water-works; daily capacity, 150,000 gallons; cost \$8000; contracts let and work progressing.

Tex., Ladonia.—City will issue \$10,000 of bonds for water-works. Address The Mayor.

Tex., Melissa.—Melissa Water-Works Co. (recently noted incorporated) will install water-works costing within \$8000; contract let; machinery mainly supplied. Address C. R. Osburn. (See "Machinery Wanted.")

Va., Chase City.—City is prepared to award franchise for installation of water-works and sewerage system; 2000 population; R. D. Patterson, president Commercial Club. (See "Machinery Wanted.")

Va., Lawrenceville.—City voted \$50,000 bond issue for construction of water-works, sewer system and electric plant; engineer, J. B. McCrary Company, 1311 Empire Bldg., Atlanta, Ga. (Recently noted.)

Va., Norfolk.—City contemplates increasing water supply; committee of whole Council will meet September 1 at 8 P. M. to receive definite proposition; R. E. Steed, City Clerk. (Recently noted. See "Machinery Wanted.")

W. Va., Grafton.—City will vote on \$90,000 bond issue for construction of water-works and power plant on Grafton Park. Address The Mayor.

W. Va., Northfork.—City will vote on bond issue for constructing water system, including two concrete tanks of 30,000 gallons capacity each and filter; cost about \$12,000; bids opened about October 1; Walter Prockter, engineer; R. R. Roberts, Mayor. (See "Machinery Wanted.")

WOODWORKING PLANTS

Ala., Decatur—Pencil Slabs.—Alabama Red Cedar Co. will double capacity of lead pencil slab factory.

Ala., Florence.—Buggies.—Union Buggy Manufacturing Co., recently reported incorporated with \$3000 capital stock, will succeed Union Repair Co.; will erect additional building, 25x150 feet; galvanized iron; rubber roofing; John F. Jackson, president; W. T. Reynolds, secretary; C. C. Morrison, treasurer.

Ala., Lineville.—Furniture.—East Alabama Furniture Manufacturing Co. organized by W. D. Mitchell, S. J. Gay, M. M. Eppe, B. F. Thornton and R. A. Gaines; purchased and will operate furniture factory.

Ala., Ragland.—Cooperage.—Ragland Cooperage Co. will install heading mill.

Ga., Gainesville—Wagons.—Gower Wagon Co. incorporated with \$10,000 capital stock; will establish wagon factory; Samuel C. Dunlap, Sr., president; M. C. Brown, vice-president; W. H. Slack, secretary; E. N. Gower, general manager and treasurer; construction supervised by company; recently noted. (See "Machinery Wanted.")

Ga., Macon—Wagons.—Brown Wagon Co., R. L. Brown, president, increased capital stock from \$50,000 to \$150,000.

N. C., Albemarle.—Furniture.—Albemarle Furniture & Manufacturing Co., A. P. Harris, president, increased capital stock from \$10,000 to \$25,000; will make improvements, including repairing of old buildings, erection of additional structures and installation of additional machinery.

N. C., Southmont—Spokes, etc.—Southmont Spoke, Handle & Hub Co. incorporated with \$50,000 capital stock by D. O. Ceell, W. V. Butler, L. E. Miller and others.

Tenn., Chattanooga.—Furniture.—A. G. Stivers Lumber Co. (recently reported incorporated with \$175,000 capital stock) is being organized to succeed Loomis & Hart Manufacturing Co.; will rebuild furniture factory; officers not elected; plans not determined.

Tex., Rusk.—Furniture.—Board of Prison Commission, Huntsville, Tex., will erect furniture factory; 50x200 feet; two stories; brick; sprinkler system; elevator; cost \$25,000.

Fla., Fort McCoy.—Crates and Boxes.—George Rentz contemplates establishing cypress crate and box factory. (See "Ice and Cold-Storage Plants.")

BURNED

Ala., Oneonta.—Masonic Hall and store of J. A. Brice & Son; loss \$3000.

Fla., Pensacola.—Residence of Rev. John Brown, rector of Christ Church.

Ga., Sparks.—Claude Adams' cotton gin.

Ky., Louisville.—Building owned by Mrs. Rose A. Hibbitt and occupied by Rudolph & Bauer; loss \$5000.

Ky., Louisville.—Building owned by Mrs. Regina Glock, occupied by D. H. Russell Distilling Co.; loss \$5000.

Ky., Louisville.—Louisville Herald Co.'s building and machinery damaged; loss reported as \$125,000.

Ky., Nicholasville.—David Bell's residence; loss \$10,000.

La., Baton Rouge.—Louisiana Sugar Co.'s refinery, owned by Frank J. Webb; loss about \$30,000.

La., Many.—Rusk Lumber Co.'s planing mill; loss \$5000.

Md., Baltimore.—Robert C. Criedler & Bros.' oyster shell mill at East Falls Ave. and Fawn St.

Md., Baltimore.—George D. Hinder's barn in Long Green Valley; loss \$5000.

Miss., Batesville.—Residences of Dr. G. H. Wood, C. B. Vance, Dr. F. P. Perkins, and Methodist church; loss \$22,000.

Miss., Ellisville.—Ellisville Ice Factory & Bottling Works; J. R. Caldwell, owner.

Miss., Gulfport.—Gulfport Opera-house; loss \$30,000.

Miss., Richton.—Carter-Hoaroth Lumber Co.'s sawmill.

Mo., Windsor.—Windsor Flour Mills, owned by J. P. Feaster.

N. C., Forest City.—M. L. Clemmer's sawmill.

N. C., Hillgirt.—A. A. Edwards' store, containing U. S. postoffice; loss \$9000.

N. C., High Point.—W. F. White & Co.'s store building, owned by Douglas Davis.

N. C., Washington.—Eureka Lumber Co.'s lumber plant; estimated loss \$35,000.

Okla., Pawhuska.—Residence of Judge J. M. Worten.

S. C., Conway.—Southern Wood Products Co.'s plant.

S. C., Honea Path.—W. J. McGee's hotel; J. S. Moore's dwelling.

Tenn., Chattanooga.—Residence of A. T. Waters of Chattanooga Aedine Co.

Tenn., Maryville.—Dwellings of T. A. Hill and Mr. Bond; loss \$5000.

Tenn., Union City.—Mayes' restaurant; building occupied by Stone & Rainey Grocery Co.; loss \$8000.

Tenn., Knoxville.—Hazen & Lotspelch Co.'s grocery store; loss \$12,000; R. S. Hazen, president.

Tex., Dallas.—Building owned by Rose & Shields and occupied by J. J. Miller and Kaufman-Myers Furniture Co., loss \$40,000; building owned by M. M. Baker and occupied by Art Wallpaper Mills, loss \$55,000.

Tex., Gregory.—C. F. Williams' dwelling; warehouse, barn and cottage of Coleman-Fulton Pasture Co.; loss \$300,000.

Tex., Lewisville.—Jenkin Lumber Co.'s office, sheds, etc.; estimated loss \$15,000.

Tex., Omaha.—Postoffice; H. B. Coffey's store; T. J. Davis and T. W. Harper's restaurant; loss \$10,000.

Tex., Van Alstyne.—Grayson County Elevator & Grain Co.'s grain elevator; loss about \$15,000.

Tex., Victoria.—Otto Kopplin's residence; loss \$4000.

Tex., Whitesboro.—Stores owned by W. N. Nally, Mrs. C. Boston, R. L. Sloan and Sunny & Gravel; loss \$10,000.

Va., Cumberland.—D. J. Saunders' planing mill.

W. Va., Parkersburg.—Stable A at Shattuck Park; owned by Fair Association.

DAMAGED BY STORM.

Tex., Abilene.—Abilene Light & Water Co.'s plant was not damaged, as recently reported.

Tex., Abilene.—W. L. Beckham, Jr., states hotel was but slightly injured. (Recently noted damaged by storm.)

Brownell Company's Power Contracts

Two large Government contracts for power-plant installation at Fort Sheridan, Ill., have been recently received by the Brownell Company, Dayton, O. The company manufactures engines, boilers and feed-water heaters, and has had a very busy season since the first of the year. Other contracts include a number of municipal electric-light and power plants and variable-speed engines for paper-mill work, including one in Mexico. Branch offices of the company are located in the Bank of Commerce Bldg., St. Louis, and in the Monadnock Bldg., Chicago.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Ark., Newport.—George M. Bonnel has plans to erect apartment-house; two stories; brick; tile roof.

Mo., Baltimore.—John G. Rhode, 1042 N. Stricker St., and M. Rhode, 1800 Pennsylvania Ave., have revised plans by John R. Forsyth, 232 St. Paul St., Baltimore, to erect apartment-house; three stories; frame and stucco; slate roof. Contractors estimating are L. J. Brown, Pimlico Blvd. near Belvidere Ave.; Fidelity Construction Co., 64 Kulerhocker Bldg.; R. H. Frazier & Son, 230 St. Paul St.; H. A. Kelbaugh, 1945 Harlem Ave.; Park Heights Construction Co., all of Baltimore. (Recently noted.)

Mo., Kansas City.—H. Lippigoes will erect apartment-house and store at 3710 E. 27th St.; brick; cost \$3500.

Mo., St. Louis.—Van Buren Realty & Building Co. will erect apartment-house at 5811 Washington St.; three stories; cost \$20,000.

Mo., St. Louis.—A. Blair Riddington will erect apartment-house; 52x66 feet; ordinary construction; low-pressure steam heat; cost \$20,000; work is being sublet; contracts all placed.

ASSOCIATION AND FRATERNAL

Ala., Dothan.—Benevolent Protective Order of Elks will erect lodge.

Ark., Little Rock.—Masonic Templars have plans by Frank M. Blaisdell to erect temple corner Broadway and 9th St.

Tenn., Clarksville.—Independent Order of Odd Fellows will open bids August 19 to erect dormitory to accommodate 100 boys; 60x80 feet; plans by J. Galsford, 408 Goodwyn Institute, Memphis, Tenn.; architect may be addressed. (Recently noted.)

Tex., Alpine.—Ancient Free and Accepted Order of Masons will receive bids until August 20 to erect two-story Masonic building; plans and specifications on file at office of R. B. Silght, Alpine.

Tex., Ennis.—Ennis Railroad Young Men's Christian Association contemplates erecting natatorium.

Tex., Floydada.—Ancient Free and Accepted Order of Masons will erect lodge building; plans have been prepared.

Va., Bedford City.—Benevolent and Protective Order of Elks, F. C. Robinson, national secretary, Dubuque, Iowa, will erect home for aged and infirm Elks. (Recently noted.)

Va., Norfolk.—Benevolent Protective Order of Elks will, it is reported, erect lodge building at College Park; four stories.

W. Va., Grafton.—Grafton Lodge of Elks opened bids to erect lodge; cost \$25,000.

BANK AND OFFICE

Ala., Anniston.—Land Title Co., Rutherford Lapsley, president, contemplates erection of office building.

Ala., Brewton.—Bank of Brewton will expend \$2000 to remodel bank.

Ark., Moro.—Bank organized with A. L. Wilford president; will erect bank building.

D. C., Georgetown.—Georgetown Gas & Light Co. is having plans prepared by Marsh & Peters, 320 13th St. N. W., Washington, D. C., to erect office building at Wisconsin Ave. and Dumbarton Ave.; three stories; 56x80 feet; brick and stone; cost \$40,000.

Fla., Glen Saint Mary.—Glen St. Mary Nurseries Co. has plans by J. H. W. Hawkins, Realty Bldg., Jacksonville, Fla., for office building; two stories; 38x35 feet; two wings, 20x24 feet; one story each; brick; asbestos shingle roof; ordinary construction; hot-air furnace; cost \$9500; work being sublet; contracts awarded. (Recently noted.)

Fla., Jacksonville.—J. J. Heard, Hogan and Forsyth Sts., will erect proposed bank and office building S. W. Cor. of Forsyth and Laura Sts.; 15 stories (one story underground); 100 feet square; steel and concrete; cost \$500,000. Mr. Heard wires the Manufacturers Record: "Will give information in about 10 days."

Fla., Jacksonville.—Mason Investment Co. will erect building for hotel and offices; 15 stories; 105x210 feet; steel and concrete; fireproof; hotel section to contain 250 rooms; office section to have 142; roof between sections of leaded glass; six elevators; construction to begin about September 1; cost from \$750,000 to \$1,000,000; plans by James R. Walsh.

Ga., Atlanta.—Southern Development Co. incorporated by Edwin P. Ansley and others with \$500,000 capital stock to erect building at Forsyth and James Sts. for physicians, surgeons and dentists; 100x200 feet; 10 stories; fireproof; 500 rooms. (Lately noted.)

Ga., Crawford.—Farmers' Bank has plans to erect bank.

Ga., Norcross.—Bank of Gwinnett, S. T. McElroy, president, will erect bank building; brick construction.

Ga., Portland.—Piedmont Portland Cement Co. is having plans prepared by F. W. Cooksey, Forsyth Bldg., Atlanta, Ga., for one-story office building; bungalow style; cost \$3000.

Ga., Lincolnton.—Farmers' State Bank, J. H. Boykin, president, will erect bank building; material to be purchased locally.

Ga., McDonough.—First National Bank has plans by F. W. Cooksey, Atlanta, to remodel building; two stories; brick; terra-cotta trimmings; cost \$8000. (Recently noted.)

Ga., Washington.—Farmers' Bank, J. M. Boykin, president, will erect bank.

Ky., Hardinsburg.—Farmers' Bank will erect bank building; two stories; brick.

La., Covington.—Covington Bank & Trust Co. will open bids September 2 to erect bank building; two stories; brick; plans, etc., on file at office of William Drago, architect, 1002 Perrin Bldg., New Orleans, La.

La., Paradis.—Bank of Paradis contemplates erection of bank building. J. F. Funk may be addressed.

Md., Baltimore.—Robert Garrett & Sons, 506 Continental Trust Bldg., will erect bank building at German and South Sts.; not ready to state details.

Md., Baltimore.—Western National Bank has plans by Haskell & Barnes, 301 N. Charles St., Baltimore, for improvements to bank building, including erection of addition in rear. Among contractors estimating are Morrow Bros., 216 W. Saratoga St.; John Waters, 23 E. Center St.; J. W. Clayton, 428 N. Arlington Ave.; John Hiltz & Son, rear 3 S. Clay St.; John Cowan, 106 W. Madison St.; Ferguson & Bro., 214 Clay St.; Thomas B. Stanford & Co., 109 Clay St., all of Baltimore. Bids will be opened August 21. (Lately noted.)

Mo., Kansas City.—Commerce Trust Co. will improve building for additional space for banking-rooms; construct ornamental entrance, etc.

N. C., Charlotte.—North Carolina Public Service Corporation will erect office building on South Main St.; three stories; brick and granite.

N. C., Stanley.—Farmers & Merchants' Bank will expend \$3000 to erect bank building; 25x50 feet; mill construction; date of opening bids not set. (Recently noted.)

S. C., Lexington.—Bank of Pellon, L. W. Wise, president, will erect bank building.

Tex., Bay City.—Capt. C. Langham will erect office building; 25x85 feet; two stories; brick.

Tex., Floydada.—First National Bank has plans to erect bank building; contract to be awarded about September 15.

Tex., Grapeland.—Guaranty State Bank of Grapeland, James McLean of Augusta, president, will erect brick bank building.

Tex., Houston.—International & Great Northern Railroad, O. H. Crittenden, chief engineer, Palestine, Tex., will, it is reported, erect office building.

Va., Norfolk.—Mutual Building Association has plans by B. F. Mitchell to erect office building on Tazewell St.; two stories; stone front; walls capable of carrying three additional stories; cost \$9000. (Lately noted.)

Va., Portsmouth.—Bank of Portsmouth will open bids August 22 to erect bank and office building; alternate bids invited for limestone, brick or terra-cotta; two stories; cost \$50,000; plans by B. F. Mitchell. Contractors estimating are S. B. Hutchins, Jr., C. N. Moody, Richardson Construction Co., Jesse Johnson, Baker & Brinkley, Edw. Overman and M. L. Parker. (Lately noted.)

W. Va., Clarksburg.—Union National Bank has plans by Wyatt & Nolting, Keyser Bldg., Baltimore, Md., to erect bank; 10 stories; cost \$500,000; among contractors estimating are J. Henry Miller, Inc., 108 Dover St.;

Henry Smith & Sons, 116 S. Regester St.; Morrow Bros., 210 N. Charles St.; B. F. Bennett Building Co., 123 S. Howard St.; all of Baltimore, Md. (Lately noted.)

Va., Houston.—Bank of Halifax, B. W. Leigh, president, will erect bank building.

Va., Norfolk.—Southern Produce Exchange will erect office and store building at Commercial Pl. and Water St.; cost \$25,000. (Recently noted.)

CHURCHES

Ark., Helena.—First Methodist Church, Rev. T. J. Ramsey, pastor, will erect edifice; cost \$40,000.

D. C., Washington.—Grace Reformed Church, 15th St. near Rhode Island Ave., will erect Sunday-school; cost \$20,000. Address The Pastor, Grace Reformed Church.

Ga., Ocella.—Ocella Baptist Church will erect edifice; seating capacity, 350 to 400, exclusive of Sunday-school room; fireproof; steam or hot-air heat; electric lighting; plans not determined; architect not selected; information may be had from J. A. Ansley. (Recently noted.)

Ky., Bowling Green.—10th St. Christian Church has plans to erect edifice; cost \$25,000. Address The Pastor, 10th St. Christian Church.

Ky., Franklin.—Methodist Church will erect proposed edifice on public square; cost \$25,000. Address The Pastor, Methodist Church.

Ky., Middlesboro.—Presbyterian Church, Dr. L. L. Robertson, chairman finance committee, will erect \$20,000 edifice.

La., Shreveport.—First Methodist Church, Dr. G. E. Cameron, pastor, has plans by King & Snyder of Shreveport to erect church; cost \$100,000; bids for construction to be invited about September 1.

Md., Midland.—Presbyterian congregation will erect church. Address The Pastor, Presbyterian Church.

Md., Frederick.—Evangelical Reformed Church has plans by J. & R. Lamb of New York for improvements to present building and erection of additions; will install heating system, etc.; cost of improvements, \$20,000.

N. C., Thomasville.—First Baptist Church, Archibald Johnson, chairman of committee, has plans by J. M. McMichael, Charlotte, N. C., for edifice recently noted; brick; stone trimmings; hot-air heat; electric lighting; cost \$15,000; date of opening bids not set. (See "Machinery Wanted.")

N. C., Taylorsville.—H. T. Kelly, care of Bank of Alexander, is interested in erection of edifice; desires plans, with cost estimates.

Tex., McKinney.—North McKinney Baptist Church will erect L to Sunday-school; 20x40 feet; two stories. Address The Pastor, North McKinney Baptist Church.

Tex., Pecos.—Methodist Church is having plans prepared to erect \$20,000 church; seating capacity 750. Address The Pastor, Methodist Church.

Tex., Ferris.—First Presbyterian Church, J. A. Smith, member of committee, has plans by Associated Architects, 513 Slaughter Bldg., Dallas, Tex., for edifice; 54x48 feet; frame; ordinary construction; cost \$3000. (See "Machinery Wanted.")

Tex., Taylor.—First Presbyterian Church has plans by Henry Struve to erect church; cost \$10,000.

Tex., Teague.—First Presbyterian Church, Rev. James McIntosh, pastor, has plans and will soon award contract to erect church.

W. Va., Benwood.—German Lutheran Church will erect edifice; cost \$5000. Address The Pastor, German Lutheran Church.

W. Va., Elm Grove.—Church St. Vincent de Paul contemplates erection of addition to church. Address The Pastor, St. Vincent de Paul Church.

W. Va., Triadelphia.—Church of the Blessed Virgin will erect edifice. Address The Pastor, Church of Blessed Virgin.

CITY AND COUNTY

Ala., Florence.—Library.—City contemplates erection of Carnegie library. Address Mayor Ashcraft.

Ark., Little Rock.—Engine-house.—City advertised for bids to construct engine-house at 23d and Arch Sts.; plans by Tom Harding; \$10,000 appropriated. (Lately noted.)

D. C., Washington.—Station-house.—District Commissioners will repair station-house on New Jersey Ave. between D and E Sts. N. W.; plans by city's architects; address District Commissioners.

Fla., Tampa.—City Hall.—City has plans for improvement to city hall; contemplates voting on \$200,000 bond issue; Mr. Barrett, chairman of committee.

Ga., Bainbridge.—City Hall.—City will vote in September on \$30,000 city hall bond issue. Address The Mayor.

Ky., Carlisle.—City Hall.—City has plans to erect city hall. Address The Mayor.

Mo., Springfield.—City will vote on November 21 on \$100,000 city hall bond issue. Address The Mayor.

N. C., Statesville.—City Hall.—Iredell county will erect city hall. Address County Commissioners.

N. C., Winston-Salem.—Hospital.—City voted \$50,000 bond issue to erect hospital; plans not determined; location not selected; Rufus I. Dalton, Mayor.

Okla., Oklahoma City.—Fire Stations.—City will erect fire stations at Capitol Hill and Packington; cost from \$12,000 to \$15,000 each; J. T. Higley, Commissioner of Public Safety.

Okla., Tulsa.—Fire Station.—City votes August 15 on \$50,000 bond issue to purchase, erect and equip fire station; A. J. Martin, Mayor.

Tenn., Nashville.—Hospital.—Davidson County Tuberculosis Hospital Commission, Hilary Howse, chairman, will receive bids until August 17 at 12 o'clock to erect tuberculosis hospital; plans and specifications on file at office of Marr & Holmes, architects, 301 Stahlman Bldg. (Lately noted.)

Tex., Beaumont.—Jail.—City voted \$15,000 of jail-repair bonds. Address The Mayor. (Lately noted.)

Tex., Fort Worth.—Hospital.—Tarrant County Commissioners voted to appropriate \$20,000 to erect hospital, city having already voted \$20,000 bonds. Address The Mayor or Tarrant County Commissioners. (Recently noted.)

W. Va., Triadelphia.—Town Hall.—Henry Otto, H. V. Springer and C. W. Craft are building committee to secure estimates to erect town hall.

COURTHOUSES

Fla., Inverness.—Board of Commissioners Citrus county postponed time of receiving bids for courthouse estimated to cost about \$50,000; plans and specifications to be altered; Walter F. Warnock, County Auditor and Recorder. (Previously noted.)

Fla., Quincy.—Gadsden County Commissioners will open bids in about two months to erect courthouse; 60x125 feet; two stories and basement; fireproof construction; steam heat; electric lighting; cost \$60,000; plans by Hentz & Reid, Atlanta, Ga.; architects may be addressed. (Previously noted.)

Ga., Atlanta.—Commissioners of Roads and Revenue of Fulton County opened bids to erect framework of courthouse. Following are lowest bidders for various work: Massillon (O.) Bridge & Structural Co., at \$131,000, for steel frame work; Moise De Leon, Atlanta, Ga., at \$122,000, for reinforced concrete frame work; Gulf Concrete Construction Co., Houston, Tex., at \$115,555, with pile caps \$35,691, for concrete pile work; Neuchatel Asphaltic Co., New York, lowest bidder at \$9950, for waterproofing, and J. M. Allen, Chattanooga, Tenn., lowest bidder, at \$68,682, for tile fireproofing and floor construction; plans by A. Ten Eyck Brown and Morgan & Dillon, 607-10 Forsyth Bldg., Atlanta. (Lately noted.)

Ga., Leesburg.—Lee County Commissioners contemplate voting on bond issue to erect courthouse. Address County Commissioners.

S. C., Greenville.—Greenville county defeated issuance of \$100,000 bonds for erection of courthouse. Address County Commissioners. (Lately noted.)

Tenn., Jonesboro.—Washington county contemplates voting on issuance of bonds to erect courthouse. Address County Commissioners.

DWELLINGS

Ala., Aliceville.—T. H. Sanders will erect residence.

Ark., Little Rock.—E. D. Bracy has plans by W. D. Holtzmann, Jr., to erect residence at 24th and Battery Sts.; two stories; stucco; seven rooms.

Ark., Little Rock.—Frank M. Blaisdell is preparing plans for number of dwellings to be erected at Forest Park.

Ark., Texarkana.—E. E. Porter purchased cotton plantation of 1300 acres, and will erect dwelling.

D. C., Washington.—Harry Wardman, 1342 New York Ave. N. W., has plans by A. H. Beers, 1312 New York Ave. N. W., to erect 19 dwellings on Upshur St.; two stories; brick; cost \$38,000; construction by owner.

D. C., Washington.—W. F. Brown, 1343 Harvard Ave., has plans by W. P. Lockwood Bond Bldg., Washington, to erect three

dwellings at 2051-53 and 2101 9th St. N. W.; two stories; brick; cost \$5000.

D. C., Washington.—George H. Myers will erect residence on 8 St. between 23d and 24th Sts.

D. C., Washington.—Henry S. Mott, vice-president of United States Storage Co., 422 10th St. N. W., will erect dwellings on Harrison and 13th Sts., Fairlawn.

D. C., Washington.—Dr. Thomas A. Slaytor has plans by Clark Waggaman, 1124 Connecticut Ave. N. W. and T. G. B. Fuller, 806 17th St. N. W., both of Washington, to erect residence on R St. near 18th St.; 29x100 feet; three stories; brick; Georgia architecture; English basement; 18 rooms; 4 baths; interior hardwood and quartered oak; cost \$20,000.

D. C., Washington.—Isaac Tepper will erect dwelling at 1240 Evans St.; two stories; frame; cost \$3000; construction and plans by owner.

D. C., Washington.—H. R. Howenstein, 1314 F St. N. W., will erect five dwellings at 204-212 Rhode Island Ave. N. W.; eight rooms.

D. C., Washington.—J. K. Wallace has plans by W. T. Shepherd to erect dwelling at 1322 Munroe St. N. W.; two stories; frame; cost \$4000; construction by owner.

D. C., Washington.—James A. Cahill, 1308 F St. N. W., and D. J. Dunigan, Bond Bldg., will erect 20 dwellings on Kilbourne St. between 18th and 19th Sts.

Fla., St. Petersburg.—A. F. Thomasson, cashier of Central National Bank, will erect residence at 6th St. and Sixth Ave.

Fla., Winter Haven.—John Deavenport is having plans prepared by Nolan & Avery, Tampa, Fla., to erect residence.

Fla., Winter Haven.—Mrs. A. Bush is having plans prepared by Nolan & Avery, Tampa, Fla., to erect residence; cost \$4500.

Ga., Atlanta.—J. N. Renfro will expend \$7000 to erect two one-story frame dwellings; day labor. (Recently noted.)

Ga., Atlanta.—F. A. Pittman will erect dwelling; two stories; eight rooms; cost \$3000; day labor.

Ga., Atlanta.—D. C. Smith has plans by L. R. Wilburn, 310 Peters Bldg., for two eight-room dwellings; ordinary construction; grates; tile sidewalks; cost \$3000; day labor. (Recently noted.)

Ga., Atlanta.—Dillon-Morris Company will expend \$3473 to erect one-story frame dwelling; six rooms; plans and construction by owner. (Recently noted.)

Ga., Atlanta.—H. W. Miller will erect two-story dwelling; brick veneer; cost \$8000; day labor.

Ga., Griffin.—D. F. Patterson has plans by A. F. N. Everett, Grand Bldg., Atlanta, Ga., for Spanish bungalow; one story; 10 rooms; shingle and stone; cost \$10,000; plans will be ready in two weeks. (See "Machinery Wanted.")

Ga., Lexington.—Col. H. McWhorter, Jr., is having plans prepared to erect dwelling.

Ga., Macon.—Thurston Thatcher will open bids August 25 to erect dwelling; two stories; seven rooms; ordinary construction; steam heat; electric lighting; cost \$4500; plans by Hentz & Ried, Candler Bldg., Atlanta, Ga.; architect may be addressed.

Ga., Macon.—W. J. Beeland, Box 415, will expend \$4000 to erect dwelling; two stories; seven rooms; brick basement; brick veneer and stucco; steam or hot-air heat; gas and electric lighting; plans and construction by owner. (See "Machinery Wanted.")

La., New Orleans.—John Mines will erect residence at Ursulin St.; two stories; cost \$6000.

La., New Orleans.—John T. Glynn will erect residence on Peniston St.; two stories; cost \$6500.

La., New Orleans.—Leontine Zatala will erect residence on Audobon St.; two stories; cost \$4000.

La., New Orleans.—Fred St. Clair will erect residence on Burke St.; two stories; cost \$3800.

Md., Baltimore.—Wm. J. Armiger, 1136 Carroll St., is having plans prepared by F. E. Beall, 213 St. Paul St., Baltimore, to erect three dwellings on Homestead St.; two stories; brick; 15x14 feet.

Md., Baltimore.—C. A. Glanville, 20 N. Fulton Ave., will erect dwelling at Ten Hills; two and one-half stories; brick.

Md., Chevy Chase.—E. G. Graham is having plans prepared by Harding & Upman, 729 15th St. N. W., Washington, to erect residence; two stories and attic; English half-timber; cost \$8500.

Md., Rogers Station (not a postoffice).—Thomas G. Buchanan, 116 Chamber of Com-

merce, Baltimore, Md., has plans by Emory & Nussear, 415 Professional Bldg., Baltimore, to erect dwelling at Rogers Station; two stories and attic; hollow tile; colored slate or tile roof; verandas; interior finish terrazzo, hardwood and parquet; contractors estimating are John Cowan, 106 W. Madison St.; Phillip Watts; J. F. Morgan Building Co., 2218 Gough St., and Israel Owings, Highland Ave., Mount Washington, all of Baltimore; bids opened August 16.

Md., Sudbrook Park.—Clarence A. Tucker, 108 Fidelity Bldg., Baltimore, Md., will erect dwelling corner Cliveden and Upland Rds.; two and one-half stories; construction begun.

Md., Sudbrook Park.—Emma Middleton, 21 S. Stricker St., Baltimore, Md., will erect residence; ornamental frame; electric lighting; steam heat; construction begun.

Mo., Kansas City.—Frederick C. Hector will expend \$4500 to erect dwelling; 28x30 feet; ordinary construction; hot-air heat; electric lighting; granitoid sidewalks; plans by W. C. Robinson, 3519 Highland St., Kansas City; work on percentage basis. (Recently noted.)

Mo., Kansas City.—H. L. Laitner will erect two dwellings at 4030-34 Holmes St.; cost \$3600.

Mo., Kansas City.—Gertrude Elson will erect residence at 519 W. 74th St.; frame; cost \$4500.

Mo., Kansas City.—Robinson & Cobb will erect dwelling at 53 W. 61st St.; cost \$4500.

Mo., Kansas City.—G. H. McCaules will erect four dwellings at 2501-7 E. 25th St.; frame; cost \$8000.

Mo., Kansas City.—F. A. Kelsey will erect dwelling at 137 W. 61st St. Ter.; frame; cost \$4000.

Mo., Kansas City.—W. B. Weaver, 304 Commerce St., will expend \$10,000 to erect residence; 28x48 feet; ordinary and mill construction; hot-water heat; plans and construction by company. (Recently noted.)

Mo., St. Louis.—Chippewa Realty & Building Co. will erect three dwellings at 4368-72 Ellenwood and 4373 Neosho Sts.; one story; cost \$6000.

N. C., Mooresville.—J. L. Harris has plans by Wheeler & Stern, Charlotte, N. C., for dwelling; nine rooms; frame; hot-air heat; electric lighting; cost \$5000; bids opened in about two weeks. (See "Machinery, etc., Wanted.")

N. C., Round Knob (not a postoffice).—Round Knob Park Co., George T. Pinny, secretary, High Point, N. C., will erect cottages in connection with development of 1000 acres of land. (See "Land Developments.")

S. C., Johnston.—H. W. Crouch will erect residence on Main St.; construction begun.

Tenn., Nashville.—C. M. Warford will erect residence at Twentieth and Grand Aves.; two stories; brick; eight rooms; cost \$5000.

Tenn., Nashville.—Caldwell & Chapman will erect residence on Broadway; one story; brick; cost \$5000.

Tenn., Nashville.—K. T. McConico will erect residence on Twenty-third Ave., near Church St.; cost \$13,000.

Tenn., Nashville.—W. J. Cude Land & Lumber Co. will rebuild burned dwelling; plans are being prepared.

Tex., Bryan.—Bryan Commercial Club is interested in erection of 15 dwellings; ordinary construction; electric lighting; cost \$1000 to \$1600 each. (Commercial Club recently noted interested.)

Tex., Palacios.—Mrs. Hope H. Herron has plans to erect two-story residence.

Tex., Teague.—Leo Jacobs will erect residence corner Fifth Ave. and Cypress St.

Tex., Uvalde.—J. H. Zachery will expend \$5500 to erect dwelling; to cover 1740 square feet of floor space; eight rooms; three fireplaces for wood; electric lighting; plans by T. E. Kinney, Uvalde; day labor. (Contract recently noted awarded to Mr. Kinney.)

Va., Graham.—Mrs. Lizzie Davidson will erect dwelling.

Va., Petersburg.—Col. W. J. Durlin of Norfolk, Va., has purchased site at Colonial Heights, and will erect residence.

W. Va., Bluefield.—Hale Land Co. will erect number of additional dwellings; cost \$10,000.

Va., Richmond.—E. C. Woodward will erect two detached dwellings on Main St.; cost \$5000.

W. Va., McCreery.—W. Ash McCreery will open bids in spring of 1912 to erect dwelling; 12 rooms; fireproof construction; cost \$7000.

W. Va., Wellsburg.—George Wilson will erect residence.

W. Va., Wheeling.—Joseph Paull will erect residence at Hawthorne Court.

GOVERNMENT AND STATE

Miss., Jackson.—Hospital.—State Insane Hospital will open bids August 27 to repair burned building; ordinary construction; cost \$9000; plans by H. N. Austin, Jackson; architect may be addressed. (Recently noted.)

S. C., Columbia.—Fair Building.—South Carolina Agricultural and Mechanical Society, R. I. Manning, chairman, Sumter, S. C., will issue \$25,000 bonds to erect steel auditorium. (Lately noted.)

HOTELS

D. C., Washington.—Miller Bros., 502 9th St. N. W., have purchased Helvena, Oregon, and Berwyn apartment-house at 1925-7-9 14th St. and will remodel for hotel; about \$10,000 to be expended.

Fla., Jacksonville.—Mason Investment Co. will erect 15-story hotel and office building. (See "Bank and Office.")

Ga., Macon.—Dinkler Hotel, Joe Wilson, manager, is having tentative plans prepared to erect annex to hotel; will either construct additional stories to present structure or add 1 to contain from 30 to 60 rooms; cost \$25,000.

Miss., Laurel.—A. J. Nelson of Silver Creek, Miss., has purchased and will remodel New Laurel Hotel; erect annex; two stories; 14 rooms; brick, etc.

N. C., Round Knob (not a postoffice).—Round Knob Park Co., George T. Pinny, secretary, High Point, N. C., will erect 30-room hotel in connection with development of 1000 acres of land; cost \$30,000; plans not determined. (See "Land Developments.")

N. C., Brevard.—Hudson A. Williams and W. C. Cleveland, both of Greenville, S. C., have purchased Hotel Franklia and 15 acres of land; will remodel.

Tenn., Mayland.—Welfare Company, 68 W. Washington St., Chicago, Ill., will build hotel; cement blocks; three stories. (See "Land Developments.")

Tex., Caldwell.—Company is being organized to erect \$15,000 hotel; information furnished by J. F. McKnight, Hallettsville, Tex.

Tex., Galveston.—Moore & Sieber of Texas City, Tex., will erect hotel; three stories; reinforced concrete.

Tex., Houston.—Jesse H. Jones has adopted plans by Mauran, Russell & Crowell, 1620 Chemical Bldg., St. Louis, Mo., to erect Rice Hotel at Main St. and Texas Ave.; 128x182 feet; 18 stories; 525 rooms; cost \$1,500,000; construction to begin October 1. (Lately noted.)

W. Va., Charleston.—Elks Hotel Co. incorporated with \$5000 capital stock by W. B. George, J. F. Southall, C. F. Zimmerman and W. F. Masterson; will make improvements to hotel on Broad St.

W. Va., Wheeling.—McLure Bros. are having plans prepared by Edward Bates Franzheim, Wheeling, for annex to Hotel McLure; 40x125 feet; fireproof construction; eight stories and basement when finished; central heating and lighting plant. (Recently noted.)

MISCELLANEOUS

Ala., Birmingham.—Auditorium.—J. C. Kennedy, J. B. Weakley, Frank P. Glass and others, with J. B. Weakley, general chairman, have been appointed committee to collect funds for erection of proposed auditorium; cost \$20,000. (Lately noted.)

Ala., Corey, R. F. D. Birmingham.—Hospital.—Trustees of Holy Innocents Hospital for Children will erect hospital.

Ala., Flat Creek.—Mine Prison.—Pratt Consolidated Coal Co., W. A. Gilson, manager of mine prisons, main office, Birmingham, Ala., will erect mine prison; concrete; bathrooms; electric lights; cost \$15,000.

Ark., Jonesboro.—Fair.—Craighead Fair Association incorporated with \$5000 capital stock by W. H. Moreland president, E. N. Applegate vice-president, A. C. Kilz secretary and treasurer.

D. C., Washington.—Stable.—Alexander Stewart, 2200 Wyoming Ave., has purchased site 6x100 feet and will erect stable.

Ga., Americus.—Hospital.—Hospital Association contemplates erecting hospital.

Ga., Atlanta.—Home.—Board of Directors of Harriet Hawkes Educational and Industrial Home, R. A. Hemphill, president, appointed building committee to consider plans to erect industrial school for girls, founding home and hospital for crippled children on 50-acre tract on Stewart Ave. (Lately noted.)

Ga., Macon.—Sanatorium.—Williams Private Sanatorium Co. incorporated with \$30,000 capital stock by Dr. Howard J. Williams, Claude H. Murray and George C. Spence to erect sanatorium.

Ky., Maysville.—Hospital.—Thomas E. Peckett, E. L. Worthington and J. F. Barbour are committee to erect annex to May V. Wilson Hospital.

La., New Orleans.—Home.—Ben Hillbourn Home Association has plans by Emil Weil to erect home for sick children; Dr. D. L. Watson, Dr. L. R. DeBuys, building committee. (Lately noted.)

Md., Baltimore.—Milk Shed.—Maryland & Pennsylvania Railroad, J. S. Norris, general manager, Oak St. and North Ave., expects to build freight and milk delivery shed.

Miss., Natchez.—Rescue Home.—King's Daughters of Mississippi will erect rescue home; brick or concrete; two stories; 10 rooms; cost \$12,000.

N. C., Charlotte.—Platform.—General Fire Extinguisher Co. will receive bids for construction of concrete and earth fill freight platform; will require 737 square yards of concrete pavement; Brent S. Drain, Charlotte, is engineer.

N. C., High Point.—Garage.—S. L. Davis and J. Ed Kirkman will erect garage corner Hamilton and Commerce Sts.; 100x200 feet.

Okla., Enid.—Sanitarium.—Government Springs Sanitarium Co. incorporated with \$100,000 capital stock by Isadore Mantz, John G. Steele of Enid and L. S. Mantz of Oklahoma City, Okla.

Okla., Muskogee.—Observatory.—James H. Hotchkiss and associates will erect observatory on Brushy Mountain in connection with development of five acres for park.

S. C., Greenville.—Hospital.—Greenville Hospital Association organized with Chas. F. Hard, president; John T. Woodside, treasurer; Wm. Goldsmith, secretary, to erect hospital.

S. C., Yorkville.—Orphanage.—Church Orphanage will soon begin erection of proposed Capers Memorial building; brick veneer; 16 rooms; cost \$8000; W. B. Moore, treasurer.

Tenn., Knoxville.—Sunshine Society, Mrs. Mary J. Williams, president, contemplates erecting additional buildings at Tuckaleechee Cove.

Tex., Austin.—Auditorium.—Austin Business League is interested in erection of auditorium.

RAILWAY STATIONS

Ala., Demopolis.—Southern Railway, D. W. Lum, chief engineer maintenance of way and structures, Washington, D. C., contemplates erecting depot.

Ala., Decatur.—Louisville & Nashville Railroad, T. E. Brooks, superintendent, Birmingham, Ala., is having plans prepared to erect depot to cost several thousand dollars.

Md., Baltimore.—Northern Central Railway Co., A. C. Shand, chief engineer, Philadelphia, Pa., will, it is reported, begin construction of proposed Biddle St. improvements, including waiting platform, stairs, sheds, etc.

N. C., Charlotte.—Piedmont Traction Co. is having plans prepared by Hook & Rogers, Charlotte, to erect freight station on Mint St., near 3d; 60x240 feet; two stories and basement; basement of concrete, superstructure gray brick; red-clay tile roof.

N. C., Charlotte.—Piedmont Traction Co. and Greenville, Spartanburg & Anderson Railway Co., E. Thomason, assistant to vice-president, invites bids for constructing stations and freight buildings on railway under construction; plans on view at offices.

S. C., Greenville.—Greenville & Knoxville Railway, J. S. Crew, general manager, will soon award contract to erect passenger station on River St.

Tex., Greenville.—Missouri, Kansas & Texas Railway, A. M. Acheson, chief engineer, Dallas, Tex., will, it is reported, erect freight depot. (See "Railway Shops, Terminals, Roundhouses, etc.")

Tex., Hamlin.—Texas Central Railroad, H. S. McCall, resident engineer, Waco, Tex.; Abilene & Southern Railway, Percy Jones, chief engineer, Abilene, Tex., and Kansas City, Mexico & Orient, C. H. Webster, chief engineer, Sweetwater, Tex., contemplates erecting union station.

W. Va., Clarksburg.—Fairmont & Clarksburg Traction Co. has plans and will, it is reported, award contract to erect freight depot on Fairmont Ave. and 1st St.

W. Va., Grafton.—Baltimore & Ohio Railroad Co., F. L. Stuart, chief engineer, Baltimore, Md., will erect additional story to present freight depot; receiving platform will also be enlarged; cost \$5000; construction by company's force. (Recently noted.)

SCHOOLS

Ala., Birmingham.—Brenau College will soon begin construction of proposed clubhouse for Sigma Iota Chi sorority.

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Ala., Birmingham.—Miles Memorial College for Negroes, Dr. J. A. Bray, president, will erect additional building on campus; cost \$35,000.

Ala., Montevallo.—Alabama Girls' Technical Institute will erect additional buildings, including administration, classroom and infirmary buildings; has appropriation of \$50,000 a year for four years; Governor Emmett O'Neal, Montgomery, Ala., chairman building committee.

Ark., Crosett.—City contemplates erecting school building. Address Mayor Dooley.

Ark., Gilham.—Gilham School District No. 4 will erect two-story brick school building; ordinary construction; cost \$7000. Address School Commissioners.

Ark., Traskwood.—School Trustees of Traskwood school district will open bids August 21 to erect school; brick; plans and specifications on file at office of J. A. Cunningham, Traskwood.

Ga., Bainbridge.—City will vote in September on \$50,000 school bond issue. Address The Mayor.

Ga., Gainesville.—Brenan College has plans by F. W. Cooksey, Forsythe Bldg., Atlanta, for three college buildings for dormitories and clubhouse; construction by owner.

La., Ruston.—Lincoln Parish Board of School Directors will erect school.

Ga., Quitman.—Mayor Wilson has appointed committee to consider erection of school; will probably call for bond election.

Ky., Lexington.—Board of Education will open bids 12 o'clock August 24 to erect school at West End; plans and specifications on file in office of clerk of Board of Education and in office of architects, Garber & Woodward, 906 Andrews Bldg., Cincinnati, O.; \$6200 feet; ordinary construction; fan blast system of heating; cost \$35,000; price of labor and materials must be stated separately, and bidders submit proposals for following items of construction: Excavation, masonry and concrete work, brick work and terra-cotta, carpenter work and lumber, sheet-metal work and roofing, plastering, painting and glazing, plumbing and gasfitting, iron and steel work, electrical work, marble and slate work and hardware; separate bids will also be received for heating and ventilating; bids to contain name of every person interested, and accompanied by guarantee of some disinterested person in sum equal to 10 per cent. of amount of bid; J. O. H. Simrall, clerk. (Lately noted.)

La., New Orleans.—City will advertise for bids within few days to erect annex to B. M. Palmer School; W. J. Hardee, City Engineer. (Recently noted.)

Miss., Hattiesburg.—Baptist Women's College, W. W. Rivers, president, has not selected architect for two-story administration building; brick; ordinary construction; electric lighting; cost \$20,000. (Recently noted.)

Miss., Hattiesburg.—Mississippi Normal College, T. P. Scott, secretary board of trustees, will let contract August 24 to erect college buildings, including two dormitories and academic building; three stories each; brick; fireproof construction; president's house; two stories; brick; two-story students' cottage; brick; steam heat; electric lighting; plans by R. H. Hunt, Chattanooga, Tenn. (Previously noted.)

Mo., Rolla.—School of Mines and Metallurgy, P. E. Burton of Joplin, Mo., vice-chairman, will open bids about September 4 to erect assembly hall, library and administration offices; fireproof construction; steam heat from outside plant; electric lighting; plans by George W. Hellmuth, Chemical Bldg., St. Louis, Mo.; address architect; cost \$5,000. (Lately noted.)

Mo., St. Louis.—Board of Education will erect school at 2108 Gano St.; two stories; fireproof; cost \$149,000; plans to be submitted September 12; H. C. Toensfeldt, commissioner of school buildings.

N. C., Camden.—Camden county will open bids August 31 at 9 A. M. at office of C. H. Spence, County Superintendent, Camden, to erect school; plans and specification by Sayre & Baldwin, Anderson, S. C.

N. C., Durham.—Board of Education will erect \$15,000 school in West Durham.

N. C., Hendersonville.—Hendersonville Board of School Trustees rejected bids to erect school; \$15,000 bonds available. (Lately noted.)

N. C., Hickory.—Lenoir College, Rev. C. L. Miller, clerk, will open bids about September 10 to erect science building; fireproof construction; steam heat; electric lighting; cost \$10,000; further details not determined. (Recently noted.)

N. C., Winston-Salem.—School Board contemplates erecting school for colored people

in Belo section; also brick school for white children in northeastern part of city; bond issue for \$90,000; Rufus I. Dalton, Mayor.

Okla., Darlington.—Government will expend \$18,000 to erect boys' dormitory for Cheyenne and Arapahoe Indian School; 36 feet by 142 feet 8 inches; annex 34x46 feet; one story; ordinary construction; to be piped and supplied with fixtures for acetylene gas. (Recently noted to receive bids until August 14.)

Okla., Oklahoma City.—Building committee of Board of Education recommends that bid of Kennedy & Hobson at \$57,408 be accepted to erect Bryant school, and bid of Oklahoma City Quarries & Construction Co. at \$29,500 be accepted to erect Edgemere school building.

S. C., Spartanburg.—Wofford College, Dr. Sulder, president, will open bids October 1 to erect dormitory; three stories; 190x50 feet; ordinary construction; direct steam heat; electric lighting; cost \$45,000; plans by A. Ten Eyck Brown, Atlanta, Ga.; L. D. Profit of Spartanburg, associate architect. (Previously noted.)

Tenn., Bristol.—Washington University has plans by G. F. Barber & Co., Knoxville, Tenn., to rebuild burned dormitory. (Lately noted.)

Tenn., Maryville.—Maryville College has plans by George F. Barber & Co., Knoxville, Tenn., for improvements to Y. M. C. A. building; will erect swimming pool, lockers, dressing-rooms, girls' gymnasium, etc.

Tenn., Sharon.—City will erect \$7000 school. Address The Mayor.

Tex., Beaumont.—City voted \$25,000 of school bonds. Address The Mayor. (Lately noted.)

Tex., Byers.—School Board contemplates erection of school addition.

Tex., Colorado.—Fairfax School District voted bonds to erect school. Address School Trustees.

Tex., El Paso.—City voted \$50,000 of school improvement bonds. Address The Mayor. (Lately noted.)

Tex., Fate.—Board of Trustees Fate Independent School District, H. F. Peek, secretary, will receive bids until 2 P. M. August 19 for completion of school; two stories; brick; plans on file at office of George Lindsey, architect.

Tex., Moran.—Moran Independent School District, J. A. Hayward, secretary, will receive bids to erect school building subject to approval of bonds by Attorney-General; 54x74 feet; ordinary construction; natural-gas heating. (Bond issue recently noted.)

Tex., Rice.—School Board, W. H. Neal, secretary, will open bids August 16 to erect two-story-and-basement school; plans and specifications on file at office of Waller & Fields, architects, Fort Worth, Tex., and at office of secretary. (Lately noted.)

Tex., San Antonio.—Watts Academy will erect swimming pool, gymnasium, kitchen and dining-rooms at school.

Tex., Tilden.—Commissioners' Court will vote August 30 on bond issue to erect school. Address Commissioners' Court.

Va., Bolshesvaln.—Graham Contracting Co., Graham, Va., is lowest bidder to erect school building. (Contract recently noted awarded.)

Va., Sunny Side.—Bids will be opened August 19 to erect school; plans and specifications on file at office of S. G. White, clerk, Harpers Home, Va.

W. Va., Grafton.—African Methodist Episcopal Church, Rev. T. J. Gibbons, chairman of building committee, Clarksburg, W. Va., has plans to erect colored industrial school.

W. Va., Summersville.—Nicholas county voted bond issue to erect high school; cost \$25,000. Address County Commissioners.

STORES

Ark., Little Rock.—T. M. Sanders is preparing plans to erect store at 5th and Center Sts.; three stories; 82x150 feet; brick construction.

D. C., Washington.—F. G. Smith Piano Co. has plans by Appleton P. Clark, Jr., 816 14th St. N. W., Washington, to remodel structure at 1217 F St. N. W.

Fla., Clearwater.—Nasser Bros., Waycross, Ga., will erect store; brick; cost \$5000; Joseph Zowie in charge of construction.

Fla., Tampa.—Lucas Bros. will erect store; three stories; brick.

Fla., Tampa.—Tampa Drug Co. will erect store.

Ga., Atlanta.—H. L. Cobb will erect two stores; one story; 50x90 feet and 77x100 feet; tar and gravel roof; cost \$3500 and \$3000 respectively; day labor.

La., New Orleans.—Schwartz Bros. contemplan erecting store at Canal and Magazine Sts.

Md., Baltimore.—R. Mayer, 526 N. Gay St., is having plans prepared by John Freund, Jr., 210 E. Lexington St., Baltimore, to erect store; three stories and basement; 90x100 feet; ornamental stone front; interior finish mahogany and hardwood; metal ceilings; electric lighting and steam heat; cost \$7000; plans will soon be ready.

Md., Baltimore.—J. J. Carlin, 215 St. Paul St., is having plans prepared by Stanislaus Russell, Clifton Ave., corner Poplar Grove, to erect store at North Ave. and Poplar Grove; two stories; brick; 45x98 feet; fireproof construction; hot-water heat; gas and electric lighting; cost \$8000 construction by owner.

Mo., Kansas City.—H. Lippigoes will erect store. (See "Apartment-houses.")

Mo., Kansas City.—M. H. Gates will erect store at 407 Broadway; brick; cost \$3500.

Mo., Kansas City.—E. O. Millhouser will erect store building at 3613 E. 27th St.; frame; cost \$3000.

Mo., Kansas City.—J. W. Jenkins' Sons Music Co. has plans by Smith, Rea & Lovitt, Finance Bldg., Kansas City, to erect store building at 1217-19 Walnut St.; six stories, with walls capable of carrying 14 stories; 49x115½ feet; reinforced concrete; freight elevators, etc.; cost \$100,000; bids to be invited soon.

Mo., St. Louis.—American Brake Co., 1916 N. Broadway, will improve store cost \$5990.

Mo., St. Louis.—Kretzer Realty Co. contemplates erecting store at Garrison Ave. and Olive St.

N. C., Barnwell.—C. N. Buckhalter will expend \$3500 to erect store buildings recently noted; 23x60 feet and 27x90 feet; plans and construction by owner. (See "Machinery Wanted.")

Tenn., Cleveland.—Marion Price will erect store; two stories; brick; cost \$4500.

Tenn., Knoxville.—Hazen & Lotsepel, R. S. Hazen, president, will rebuild store building reported burned; four stories; brick; electric elevators; sprinkler system, etc.; cost \$15,000.

Tex., Corpus Christi.—C. C. Hardware Co. will erect several stores.

Tex., Waco.—O. J. Miller Produce Co. will erect store on Jackson St. near 5th St.; brick or reinforced concrete; bids being received.

W. Va., Huntington.—United Woolen Mills Co., W. A. Hersch, president, rejected bids to erect proposed store; four stories and basement; brick; cost \$25,000.

W. Va., Williamson.—Juhling Bros. are having plans prepared for 50x90-foot store building; two stories. (Recently noted.)

THEATERS

Ala., Birmingham.—R. D. Burnett has plans by E. C. Horn's Sons of New York to remodel building at 19th St. and Second Ave. for theater; cost \$10,000.

Fla., Tampa.—J. G. West of Kewanee, Ill., will, it is reported, erect moving-picture theater.

Ky., Louisville.—West Market St. Amusement Co., Fred Dale, president, has plans by S. P. Ostrander to erect theater on Bards-town Rd.; 60x150 feet; seating capacity 1500; cost \$20,000; will also erect theater at 23d and W. Market Sts. after plans by Mr. Ostrander. (Latter structure recently noted.)

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Ark., Hot Springs.—Henry Feltheimer awarded contract to Tom Pritchard to erect apartment-house at Oak and Olive Sts.; cost \$10,000.

D. C., Washington.—R. E. Clements, 500 D St. N. E., awarded contract to Lee Hammer & Son, 317 E. Capitol St., Washington, to erect apartment-house and store at 1742-44 Columbia Rd.; brick; cost \$4500; plans by B. S. Simmons Company, 1301 G St. N. W., Washington.

Tex., San Antonio.—H. S. Ramstetter, 412 Gunter Bldg., awarded contract to National Building & Investment Co., San Antonio, to erect apartment-house; 30x54 feet; mill construction; fireplaces; electric lighting; cost \$4000; plans by R. M. Lamberth, San Antonio. (Recently noted under "Dwellings.")

Tex., San Antonio.—H. S. Ramstetter, 412 Gunter Bldg., awarded contract to National Building & Investment Co., San Antonio, to erect apartment-house; 30x54 feet; mill construction; fireplaces; electric lighting; cost \$4000; plans by R. M. Lamberth, San Antonio. (Recently noted under "Dwellings.")

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Miss., Gulfport.—James J. Corcoran of Bloxi, Miss., is organizing company to erect theater.

Mo., Kansas City.—R. T. Swofford has plans by Smith, Rea & Lovitt to erect theater at Independence Blvd. and Olive St.; seating capacity 700; cost \$20,000.

S. C., Aiken.—T. C. Stone will have plans ready in a few weeks for theater recently noted.

Tenn., Chattanooga.—Airdome management has plans by J. G. Barnwell and Clarence T. Jones of Chattanooga to erect proposed Orpheus Theater on Cherry St.; 100x110 feet; marble corridor and foyer, with wainscoting six feet high; seating capacity 1800; 30 boxes, with separate entrances; refrigerating plant for cooling purposes; heating plant; cost \$125,000.

Tenn., Memphis.—Majestic Amusement Co. will expend about \$10,000 to improve building at 49 S. Main St.

W. Va., Warwood.—Warwood Amusement Co. incorporated with \$5000 capital stock by H. L. Strobel, S. Ebberts, J. J. Lash and others to erect theaters.

WAREHOUSES

Ala., Mobile.—Jett Bros. Construction Co. of Mobile is lowest bidder at \$125,000 for erection of warehouses and wharf for Mobile & Ohio Railroad; R. V. Taylor, general manager. (Lately noted.)

Ala., Rossland (not a postoffice).—Rossland Development Co., Robert R. Zell, engineer, Birmingham, Ala., will construct warehouse foundation; complete building when concrete plant is ready for operation; for company's use. (See "Land Developments.")

Fla., Tampa.—L. J. Jones has plans to erect warehouse on Water St.; three stories; brick.

Ga., Macon.—Georgia Warehouse Co., Geo. W. Smith, president, has not definitely arranged plans to erect bonded warehouse. (Recently noted to increase capital stock to \$100,000.)

La., New Orleans.—Board of Port Commissioners, Hugh McCloskey, president, contemplates issuing bonds to purchase site and erect proposed cotton warehouse.

Md., Baltimore.—Carnegie Steel Co., H. P. Bope, president, Pittsburg, Pa., wires to Manufacturers Record regarding proposed warehouse as follows: "Matter under consideration; probably be consummated; details not full completed." Referring to reports that companies (of which Carnegie Steel Co. is one) subsidiary to United States Steel Corporation will establish warehouses, J. H. Farrell, president of latter, 71 Broadway, New York, writes to Manufacturers Record: "In contemplation to facilitate distribution in territory contiguous to Baltimore, as well as for supplying many foreign markets, unable at this time to furnish particulars as to probable cost or size of buildings; details are being worked out."

Mo., St. Louis.—Washington University, 801 Spruce St., will erect warehouse at 315-325 S. 8th St.; five stories; cost \$68,000.

Tex., Houston.—Jesse H. Jones has plans by Mauran, Russell & Crowell, 1839 Chemical Bldg., St. Louis, Mo., to erect warehouse at Texas Ave. and Main St.; 50x100 feet.

W. Va., Wheeling.—J. E. Stifel Company of North Wheeling will erect structural-iron warehouse.

W. Va., Wheeling.—Bloch Bros. will erect warehouse.

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Ga., Hinesville.—Hinesville Bank will expend \$3000 to erect bank building; 25x40 feet; fireproof construction; contract recently noted awarded.

Ga., Linwood.—Linwood Afro Labor Insurance Co. awarded contract to E. Payne and T. Foster to erect office building; 28x70x20 feet; ordinary construction; stoves; gasoline lighting; cost \$2500. (See "Machinery Wanted.")

La., Abbeville.—People's Bank & Trust Co. awarded contract to R. J. Montague, Abbeville, to erect bank building; 26x70 feet; brick; white glazed front; cost \$4000; plans by C. G. Howard, Abbeville. (Recently noted.)

Md., Baltimore.—Levering Bros., 102 Commerce St., awarded contract to Monmonier & Sorrell, 1711 McCulloh St., Baltimore, to remodel offices.

Md., Westminster.—Mather Printing Co. awarded contract to Charles B. Hunter to erect office and store building. (See "Miscellaneous Enterprises.")

Tex., Mission.—First National Bank awarded contract to A. Montis to erect bank building; 30x50 feet; ordinary construction; brick; cost \$6000 to \$10,000; plans by Mr. Kurtz. (Recently noted.)

Tex., Shiner.—William Green awarded contract to erect office and store building. (See "Stores.")

Tex., Yoakum.—A. E. Beck awarded contract to erect office and store building. (See "Stores.")

CHURCHES

Ala., Eutaw.—Methodist Church will expend \$11,000 to erect edifice; 80x52 feet; brick; plans by H. D. Breeding, Birmingham, Ala.; contract recently noted awarded to Stratton Bros. & Ward, Greensboro and Pine Apple, Ala.

Ky., Louisville.—Hazlewood Baptist Church awarded contract to George Small, R. F. D. No. 2, Louisville, to erect Sunday-school addition; 30x60 feet; mill construction; hot-air heat; electric lighting; concrete sidewalks; cost \$3500; plans by A. Hallenborg, Louisville; construction begun. (Recently noted.)

N. C., Rocky Mount.—First Baptist Church awarded contract to J. D. Grandy, Charlotte, N. C., to erect edifice; cost \$25,000; plans by J. M. McMichael, Charlotte, N. C. (Recently noted.)

N. C., Winston-Salem.—Southside Moravian Church, Rev. E. C. Stempel, pastor, awarded contract to Fogle Bros. Company to erect church; plans by W. C. Northrup, Winston-Salem; cost \$10,000. (Lately noted.)

S. C., Greenwood.—South Main St. Baptist Church awarded contract to J. D. Grandy, Charlotte, N. C., to erect edifice; cost \$23,000; plans by J. M. McMichael, Charlotte, N. C. (Previously noted.)

Va., Norfolk.—Centenary Methodist Church, Rev. John W. Shackford, pastor, will erect church and Sunday school room at Colonial Ave. and 15th St., the latter to cost \$15,000 and to be erected first; cost of both structures, \$25,000; 100x100 feet; ordinary brick construction; hot-water heat; gas and electric lighting; contract awarded to E. M. Jordan, 548 Granby St., Norfolk. (See "Machinery Wanted.")

CITY AND COUNTY

Ala., Decatur.—City Hall.—City awarded contract for following work on city hall; construction to Abbott & Eberhard of Sheffield, Ala.; plumbing and heating to A. L. Smith & Sons of Decatur, Ala.; electric wiring to A. H. Giles of Decatur, Ala.; cost \$20,000; plans by R. H. Hunt, Chattanooga, Tenn. (Lately noted.)

La., Lake Charles.—City Hall.—City awarded contract at \$29,740 to De Latte & Lagrange to erect city hall; two stories; brick and cement; 50x120 feet. (Lately noted.)

Mo., Leeds.—Fire Station.—City awarded contract at \$5800 to F. H. Timberman to erect fire station at 37th St. and Gould Ave.

N. C., Asheville.—Police Court.—City awarded contract to E. I. Frost for improvements and enlargements to courtroom; 40x60 feet; ordinary construction; brick walls; cost \$2500; plans by T. E. Davis.

N. C., Charlotte.—City Hall.—City awarded contract to Blythe & Isenhour at \$3768 for improvements to city hall.

Okla., Hugo.—Jail.—Choctaw County Commissioners awarded contract at \$107,600 to Donathan Moore of Wilkerson, Okla., to erect jail and courthouse; \$25,000 bond issue voted in April.

Tenn., Humboldt.—Fair.—Humboldt Tri-County Fair Association awarded contract

to erect woman's building, 40x80 feet, and to extend live-stock shed.

Tex., Whitney.—City Hall.—City awarded contract at \$3000 to Will Smithson to erect city hall; 40x50 feet; faced brick.

COURTHOUSES

Ga., Atlanta.—Commissioners of Roads and Revenue of Fulton County awarded contracts to erect framework on courthouse as follows: Structural work, at \$122,000, to Moise De Leon, Atlanta, Ga.; waterproofing, at \$9392, to New Construction Co., New York; pile work, at \$16,300, to McArthur Pile Company, New York; plans by A. Ten Eyck Brown and Morgan & Dillon, 607-10 Forsyth Bldg., Atlanta, Ga. (Lately noted.)

Okla., Hugo.—Choctaw county awarded contract at \$107,600 to Donathan Moore of Wilkerson, Okla., to erect courthouse and jail; \$25,000 bond issue voted in April.

DWELLINGS

Ark., Little Rock.—W. C. Foster awarded contract to Ira Davis to erect dwelling and garage at S. W. Cor. Gaines and 22d St.

Ark., Little Rock.—W. H. Sutton awarded contract to B. H. Crawford to remodel residence at Fifth Ave. and Cumberland St.; plans by W. D. Holtzman.

Ark., Little Rock.—Mrs. H. H. Foster awarded contract to Thalman & Reid to erect residence in Pulaski Heights; plans by T. M. Sanders, Little Rock; cost \$8500.

Ark., Little Rock.—Mrs. G. W. Rankin of Varner, Ark., awarded contract to D. H. Norwood to erect residence on Hillcrest.

D. C., Washington.—Clementia Crusor awarded contract to M. B. Crusor, 51st St., corner G. N. W., to erect two dwellings at 5220 E. Deanwood St.; two stories; cost \$4000.

Fla., St. Augustine.—W. A. Dutton, Cleveland, O., will expend \$5000 to erect dwelling; 32x43 feet; brick; tile roof; heating and lighting to cost \$575; plans by F. A. Hendrich, St. Augustine; contract recently noted awarded to E. J. Masters, 14 Saragossa St., St. Augustine. (See "Machinery Wanted.")

Ga., Atlanta.—George W. Adair awarded contract to S. J. Warner to erect proposed dwelling; two stories; hollow tile and faced brick; 14 rooms; cost \$55,000; plans by Edward Dougherty, Candler Bldg., Atlanta.

Ga., Hawkinsville.—Mrs. H. F. Lawson awarded contract to O. R. Mills, Hawkinsville, to erect dwelling; 40x40 feet; two stories; shingle roof; ordinary construction; cost \$4000; plans by Alexander Blair, Macon, Ga. (Recently noted.)

Ga., Savannah.—H. B. Stanton awarded contract to E. P. Farr to erect dwelling; two stories and basement; frame; cost \$3300; plans by F. W. Cooksey, Forsythe Bldg., Atlanta, Ga.

Ky., Paducah.—Geo. W. Houser awarded contract to James Rouse to erect dwelling; two stories; frame.

Md., Annapolis.—L. W. Labrot will expend \$55,000 to erect dwelling at White Hall, near Annapolis; fireproof construction; plans by Parker, Thomas & Rice, Union Trust Bldg., Baltimore, Md.; contract recently noted awarded to John Hiltz & Sons Company, 3 Clay St., Baltimore, Md.

Md., Baltimore.—William A. Flamm, 126 N. Calhoun St., awarded contract to J. F. Hardy, N. W. Cor. Groveland and Eldorado Aves., to erect dwellings at Bancroft Park; two and one-half stories; ornamental shingle; slate roof; electric lighting; hot-water heating.

Md., Roland Park.—Millard F. Burgess, 2233 Eutaw Pl., Baltimore, Md., awarded contract to John F. Kunkle, 413 Lemon St., Baltimore, Md., to erect dwelling at Roland Heights; frame; two and one-half stories; plans by Glidden & Friz, Glen Bldg., Baltimore, Md. (Lately noted.)

Md., Sudbrook Park.—Clarence I. Reynolds, secretary Mercantile Trust Co., Baltimore, Md., will erect residence at Sudbrook Park; ornamental stone; slate roof; 57x25 feet; shingles; hot-water heat; electric lighting; brick sidewalk; cost \$12,500; plans by Otto Simonson, 1210 American Bldg., Baltimore, Md.; contract awarded to Joseph Berman and Charles F. Stein; construction begun.

Miss., Columbia.—Dr. John L. Pape and John Watts awarded contract to J. E. Green to rebuild burned dwelling.

Mo., Kansas City.—Edward P. Sappington has plans by and awarded contract to J. R. Vansant, 3755 Pennsylvania Ave., Kansas City to erect dwelling; 30x43 feet; furnace; cost \$5000. (Recently noted.)

N. C., Charlotte.—John Bass Brown awarded contract to J. E. Solomon to erect dwelling; cost \$5000.

N. C., Wilkesboro.—J. A. Farester has plans by and awarded contract to J. F. Allen, Wilkesboro, to erect dwelling; 42x16, with L. 14x14 feet; mill construction; fireplaces; cost \$15,000. (Recently noted burned.)

N. C., Winston-Salem.—Lindsay Fishel awarded contract to Fogle Bros. Company, Winston-Salem, to erect dwelling; two stories; frame; pebble-dash; electric lighting; cost \$3000.

S. C., Charleston.—J. H. Dingle awarded contract to erect two-story eight-room dwelling; hot-water heat; gas and electric lighting; cost \$7000. (Recently noted.)

Tenn., Knoxville.—W. M. Fulton awarded contract to J. M. Dunn & Son to erect residence on Temple St.; brick; tile roof; cost \$10,000; plans by L. C. Waters.

Tex., Benchley.—R. H. Seale will expend \$7000 to erect dwelling; 41x52 feet; ordinary construction; acetylene lighting; plans by Harvey L. Page, San Antonio, Tex.; contract recently noted awarded to R. S. Taylor, Bryan, Tex.

Tex., Bryan.—J. O. Chance will expend \$7800 to erect dwelling; 42x50 feet; electric lighting; plans by Harvey S. Page, San Antonio, Tex.; contract recently noted awarded to R. S. Taylor, Bryan.

Va., Portsmouth.—John T. Brown awarded contract at \$3040 to L. L. Reynolds to erect dwelling on Randolph St. between 2d and 3d Sts.

Va., Langley.—Joseph Leiter, 1500 New Hampshire Ave., Washington, D. C., awarded contract to R. J. Beall Construction Co., 731 15th St. N. W., Washington, D. C., to erect dwelling 68x135 feet with two wings; mill construction; hot-air heat; electric lighting; cost \$75,000; plans by J. E. Price. (See "Land Developments.")

Va., Portsmouth.—Mrs. Emma Thompson awarded contract at \$4000 to C. M. Major to erect dwelling; two stories; frame; slate roof.

GOVERNMENT AND STATE

Ga., Cordele.—Postoffice.—Government awarded contract at \$54,500 to Ambrose B. Stannard of New York to erect postoffice; \$67,500 available; James Knox Taylor, supervising architect, Washington, D. C. (Lately noted.)

Ky., Lakeland.—Hospital.—Kentucky State Board of Control for Charitable Institutions awarded contract at \$9450 to John Greiner & Son, Louisville, Ky., to erect tuberculosis hospital; 186x30 feet; mill construction; steam heat; electric lighting; plans by D. X. Murphy & Bro. of Louisville, Ky. (Lately noted.)

La., New Orleans.—Immigrant Station.—E. S. Redfern, United States Commissioner of Immigration, awarded contract to Doulutt & Williams at \$3300 for construction of runway and ramp at proposed immigration station.

La., Shreveport.—Barns.—Louisiana State Fair Association awarded contract to Garson Bros., Shreveport, to erect cattle barn 50x120 feet and horse barn 50x100 feet; fireproof construction; electric lighting; cost \$2844; plans by A. J. Armstrong & Co., Shreveport. (Previously noted.)

HOTELS

Fla., Jacksonville.—New South Farm & Home Co., Charles H. Selg, president, Chicago, Ill., leased portion of Duval Hotel and awarded contract to Halsem & Woodcock to remodel for office.

Ky., Eddyville.—W. H. Hagan of Sturgis, Ky., and J. I. Smedley, Paducah, Ky., have contract to erect annex to hotel.

Tex., Houston.—Settegast Realty Co. awarded contract to John Stadler to erect proposed hotel on Fannin St.; 150x100 feet; four stories; reinforced concrete; cost \$100,000.

MISCELLANEOUS

Ark., Little Rock.—Clubhouse.—Chamber of Commerce awarded contract to Thalman-Reid to make improvements to clubrooms; plans by Chas. Thompson, Little Rock. (Recently noted.)

Ark., Little Rock.—Garage.—W. C. Foster awarded contract to Ira Davis to construct garage and residence at S. W. Cor. Gaines and 22d St.

D. C., Washington.—Stable.—Corby Bros., Chevy Chase, Md., awarded contract to Jas. L. Parsons, 606 Union Trust Bldg., Washington, for repairing stable at 2301 Georgia Ave.; cost \$5000.

Fla., Arcadia.—Postoffice.—Perry C. Brown has plans by and awarded contract to R. W. Hall, Arcadia, to erect postoffice, store and office building. (See "Stores.")

Md., Baltimore.—Hospital.—St. Agnes Hos-

pital will expend \$7000 to erect sun parlor and porch; 25x45 feet; fireproof and mill construction; plans by Theodore Wells Pietsch, American Bldg., Baltimore; contract recently noted awarded to Consolidated Engineering Co., second floor Emerson Tower Bldg., Baltimore.

Md., Baltimore.—Orphanage.—St. Vincent's Orphan Asylum, Lafayette Ave. and Division St., awarded contract to Monmonier & Sorrell, 1711 McCulloh St., Baltimore, for improvements and addition to orphanage.

Md., Cumberland.—Hospital.—Trustees of Western Maryland Hospital awarded contract to John B. McFarland, Cumberland, to remodel hospital; improvements include alterations to four bathrooms; installing new bathtubs, etc.; side walls to be vitrolite, 4 feet high, 1/2 inch thick; cost \$3000; material purchased; plans by Wright Butler, Cumberland.

Md., Cumberland.—Veterinary Hospital.—Dr. C. A. Matthew has plans by and awarded contract to J. C. Powell, Cumberland, to erect veterinary hospital; 30x70 feet; two stories; fireproof construction; hot-water heat; gas and electric lighting; cost \$4500. (Recently noted.)

Miss., Columbia.—Garage.—Bruce Yearwood awarded contract for erection of garage.

S. C., Pelzer.—Cotton Platform.—Pelzer Manufacturing Co. awarded contract to Jamison & Morris, Greenville, S. C., to erect concrete cotton platform; 100 feet wide, 200 feet long; construction begun.

Va., Portsmouth.—Garage.—Dr. E. H. Claud will erect garage to be occupied by W. O. Daughtridge; 40x80 feet; ordinary construction; gas and electric lighting; cost \$6000; plans by A. B. Roane of Portsmouth; contract awarded to S. B. Hutchins of Portsmouth.

W. Va., Parkersburg.—Fair Buildings.—West Virginia Fair Association awarded contract to S. H. Lowter, Parkersburg, to rebuild burned stable "A" at Shattuck Park; cement block; fireproof.

RAILWAY STATIONS

Ark., Fort Smith.—Kansas City Southern Railway Co., C. E. Johnson, chief engineer, Kansas City, Mo., awarded contract to T. T. Reddick of Fort Smith to erect passenger station; 85x230 feet; fireproof construction; cost \$100,000; plans by D. H. Burnham & Co., Chicago, Ill. (Recently noted.)

La., Shreveport.—Garson Bros. have contract for improvements to Union station.

SCHOOLS

Ala., Livingston.—Alabama Normal College, W. G. Brock, president, awarded contract to L. W. Hawkins, Meridian, Miss., to erect girls' dormitory and dining hall; 70x100 feet; ordinary construction; metal laths; steam heat; cost \$25,000; plans by P. J. Krouse, Meridian, Miss. (Recently noted.)

Ark., Fort Smith.—City awarded contract to T. T. Reddick at \$7000 to erect Midland Heights school, and at \$60,000 to erect three-story brick and stone school at Duval.

Ark., Parkin.—T. M. Sanders awarded contract to Gibson & Daly of Memphis to erect school; cost \$18,000.

Ga., Dawson.—Board of Education awarded contract to G. M. Lunsford of Eufaula, Ala., at \$12,347 to erect four additional classrooms and install sewerage system.

Ga., Macon.—City awarded contract at \$5750 to W. J. Marshall Company to erect building on Cherokee Heights; two stories and basement; frame; plans by Frank Hopp, Macon. (Lately noted.)

La., Mooringsport.—Building committee of Caddo parish awarded contract at \$6420 to Tom Green, Shreveport, La., to erect school.

La., Plaquemine.—Iberville Parish School Board awarded contract at \$46,895 to Caldwell Bros. of Abbeville, La., to erect high school; three stories; brick. (Lately noted.)

Mo., Springfield.—Fourth District Normal School trustees awarded contract to Hiram Lloyd Construction Co., St. Louis, Mo., to erect additional wing to school; Missouri marble construction; cost \$65,000.

N. C., Winston-Salem.—City awarded contract to Caldwell Bros., Winston-Salem, to erect school; two stories; 149x57 feet; pressed brick and granite; 12 classrooms, etc., 22x35 feet; contracts for heating plant in North Winston graded school annex and West End primary building awarded to Crawford Plumbing & Mill Supply Co. (Lately noted.)

N. C., Winston-Salem.—City voted \$60,000 bond issue for school improvements; contract awarded to erect school in East Winston; 12 rooms; plans by W. C. Northrup, Winston-Salem. (Lately noted.)

Okl., Tulsa.—City awarded contract at \$300 to J. J. Harris to erect addition to negro school. Address The Mayor.

S. C., Batesburg.—School Board awarded contract to W. F. Dohy & Son, Batesburg, to erect school building; eight rooms and auditorium; brick; cost \$15,000; plans by Shand & LaFaye, Columbia, S. C.

Tenn., Cumberland Gap.—Lincoln Memorial University awarded contract to G. T. Spencer of Cumberland Gap to erect dormitories; cost \$23,000; plans by R. F. Graf & Sons, Knoxville, Tenn.

Tenn., Nashville.—State Superintendent of Public Instruction, J. W. Brister, awarded contracts to erect negro agricultural and industrial school as follows: Carpenter work, S. H. Bowers, \$21,535; brick work, J. H. Hutchison & Co., \$19,073; plumbing, D. Gre-war, \$2,400; concrete, Foy-Proctor Company, \$128; painting, I. Smith, \$300; roofing, Southern Bitulthic Co., \$1274; foundation, J. E. LeSeuer & Co.; cut stone, Nashville Cut Stone Co., \$2481; heating, D. Grewar, \$10,000; plastering, Hardison & Co., \$6250; electric work, Herbrick & Lawrence, \$1150.

Tex., Gorman.—City will construct \$20,000 three-story brick school building; contract awarded; foundation laid. Address The Mayor.

Tex., Madisonville.—City awarded contract at \$18,500 to D. F. Johnson of Mount Pleasant, Tex., to erect high school.

Tex., Port Neches.—Port Neches School District Commissioners have plans by and awarded contract to J. T. Smith, Beaumont, Tex., to erect school and auditorium; two stories; six rooms. (Lately noted.)

Tex., Teague.—W. B. Fogleman has contract at \$250 to erect school.

Va., Port Norfolk (postoffice Portsmouth). City awarded contract to Charles F. Harerer of Portsmouth to erect school; brick and stone; two stories; plans by Lee & Diehl, Norfolk, Va. (Lately noted.)

STORES

D. C., Washington.—R. E. Clements, 500 D St. N. E., awarded contract to Lee Hammer & Son, 317 E. Capitol St., Washington, to erect store and apartment-house. (See "Apartment-houses.")

Fla., Arcadia.—Perry C. Brown will expend \$14,000 to erect store, postoffice and office building; ordinary construction; electric lighting; materials purchased; contract recently noted awarded to R. W. Hall, Arcadia.

Ga., Atlanta.—John Burkle awarded contract to A. E. Cochran to erect store building; three storerooms; 50x70 feet; one story; cost \$8000.

Ga., Atlanta.—Baroness Rosenkrantz awarded contract to Mackie-Crawford Construction Co. to erect store building; one story; 55x50 feet; mill construction; cost \$13,000; plans by Morgan & Dillon, Atlanta.

Md., Westminster.—Mather Printing Co. awarded contract to Charles B. Hunter to erect store and office building. (See "Miscellaneous Enterprises.")

Mo., Joplin.—John Ferguson & Edward Zelen awarded contract to Winterholer & Wooten, Joplin, to erect store; 50x110 feet; two stories and basement; brick; cost \$20,000; plans by Garstang & Rea. (Previously noted.)

Mo., Kansas City.—M. E. Taubman will expend \$30,000 to erect business building 50x132 feet; two stories with carrying capacity for five additional stories; mill construction; steam heat; electric lighting; three-way prism sidewalk lights; electric elevator, capacity 5000 pounds; plans and construction by H. M. Green, 631 Campbell St., Kansas City. (Recently noted.)

Okl., Oklahoma City.—A. F. Binns awarded contract to T. O'Keefe to erect building to be occupied by Baums Millinery Department; 25x150 feet; ordinary construction; one story; steam heat; electric lighting; cost \$7000. (Recently noted under "Dwellings.")

Okl., Wainwright.—Wainwright Adamant Brick Co. awarded contract to Mr. Tingley of Wainwright to erect store building; 60x80 feet; warehouse 30x50 feet; two stories; ordinary construction; brick; natural-gas heating; cost \$3000; plans by L. W. Hampton, Wainwright. (Previously reported burned.)

S. C., Charleston.—E. F. A. Wieters, 183 E. Bay St., will expend \$8000 to repair building; 40x164 feet; mill construction; electric lighting; contract recently noted awarded to Charleston Engineering & Contracting Co., Charleston, S. C.

Tex., Bastrop.—A. C. Erhard awarded contract to J. L. Wilbarger & Co., Bastrop, to erect drug store; 41x112 feet; ordinary construction; cost \$4500; plans by Endress & Walsh, Austin, Tex. (Recently noted.)

Tex., Shiner.—William Green awarded contract to W. O. Stephenson to erect store and office building; cost \$15,000; plans by Jules Leffland, Victoria, Tex. (Recently noted.)

Tex., Yoakum.—A. E. Beck awarded contract to Ross & Shall of Yoakum to erect store and office building; cost \$6500; plans by J. Henry Yentzen, Yoakum. (Recently noted.)

Va., Norfolk.—Southern Produce Exchange will erect store and office building. (See "Bank and Office.")

THEATERS

S. C., Gaffney.—Louis Wood will erect moving-picture theater on Limestone St.; two stories; brick; 25x100 feet; fireproof construction; stoves; electric lighting; cost \$5000; plans by Hook & Rogers, Charlotte, N. C.; contract awarded to Alexander & Mooney of Gaffney.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Evergreen.—The Alger-Sullivan Lumber Co., Century, Fla., writes that it is proposed to build 25 miles of railroad from a point in Monroe county, Alabama, to a point in Conecuh county, Alabama, which will include five or six pile trestles; country rolling; bids opened about September 10; will be an extension of the company's logging railroad. J. Millen of Duluth, Minn., is president; M. H. Sullivan of Pensacola, Fla., vice-president; and Edward A. Hauss of Century, Fla., secretary and treasurer.

Ala., Silas.—The Tombigbee Valley Railway is reported to have built an extension from Silas north to Souwilpa, four miles.

Ala., Reform.—The Alabama, Tennessee & Northern Railroad Co. confirms recent report that surveys are being made north from Reform to coal fields. One is toward Birmingham, another toward Jasper and the third due north. No route yet decided. John T. Cochran is president at Mobile, Ala.

Ark., Dardanelle.—A dispatch says that the Dardanelle, Okla. & Southern Railway, purchased by W. V. Delahunt of St. Louis, will be extended 23 miles to Scranton, Ark. F. S. Yantis is superintendent at Dardanelle, Ark.

Ark., Stuttgart.—The Stuttgart & Southern Railroad Co. has been incorporated to build a line 25 miles long from Stuttgart south through Arkansas county to a point on Bayou Meto; authorized capital \$300,000, of which \$50,000 is subscribed; incorporators, J. I. Porter, John L. Ingram, Philip Reinsch, Elliott Tallman, J. W. Underwood, L. E. Morpew and George C. Lewis.

Fla., Ocala.—The Ocala Northern Railroad, which is building an extension from Orange Springs to Palatka, has, it is reported, decided to build the contemplated extension from the latter place to Jacksonville via Middleburg. E. P. Kentz is president at Ocala, Fla.

Fla., Tampa.—The Atlantic, Okeechobee & Gulf Railway Co. has been granted franchise by the City Council to enter Tampa with its proposed line. H. C. Ferriott of New Orleans is president and Kenneth I. McKay of Tampa is counsel.

Ga., Atlanta.—The Atlanta & Carolina Railway is reported to have completed grade from White City to Carter's, 10 miles, and grading as far as Conyers is to be done by October. Matthew Mason is chief engineer.

Ga., Dahlonega.—A dispatch says that charter has been asked for the Etowah Valley Railroad Co., which will build a line from a connection with the Atlanta & Northeastern Railway and will run through five counties. The incorporators are G. R. Glenn, H. D. Gurley, W. B. Townsend, J. F. Sargent, J. H. Moore, H. Head, B. F. Anderson, J. E. Tate, T. J. Smith, J. M. Brookshire, W. H. Jones and Craig R. Arnold, all of Dahlonega. Another report says that the line will be 75 miles long from at or near Ball Ground, on the Louisville & Nashville Railroad in Cherokee county, Georgia, along the Etowah River through Creighton to the northern boundary of Georgia, in Towns county. Electric operation is proposed.

Ga., Madison.—Forest Greene, Atlanta, Ga., president of the Greene County Railroad Co., says that its plans are not ready for announcement.

Ga., Milledgeville.—J. O. Bloodworth and J. J. Catherway of the Young Men's Business League of Milledgeville are reported working on the plan to build a railroad from Milledgeville to Danville, Ga.

Va., Richmond.—M. L. Hofheimer awarded contract to A. C. Houston & Son to erect moving-picture theater at 116 Broad St., suitable for being converted into store; two stories; brick; cost \$11,000.

W. Va., Williamson.—Jubling Bros. awarded contract to McConnell Bros., Williamson, for brick work, and to Joseph H. Jamison for woodwork in erection of moving-picture parlor; 25x90 feet; ordinary construction; cost \$4250.

WAREHOUSES

Okl., Oklahoma City.—Stanford Furniture Co. awarded contract to Gross Construction Co. to erect warehouse on Grand Ave.; six stories; reinforced concrete; cost \$65,000.

Tex., Houston.—Brown Candy & Cracker Co. will erect warehouse on Baker St.; two stories; brick; 60x150 feet; cost \$10,000; W. H. Young, contractor.

La., Honey Island.—A. J. McCausland of Memphis and Chicago is reported building a railroad to develop timber lands of the Louisiana Hardwood Lumber Co. of Honey Island. About five miles are done.

Md., Baltimore.—The Western Maryland Railroad has begun clearing the old buildings from the block of land recently purchased adjoining Hillen Station, and will build thereon team tracks and other improvements. H. R. Pratt is chief engineer at Baltimore.

Md., Baltimore.—Reported that the Northern Central Railway (Pennsylvania) will soon begin construction of additional trackage at the Mount Vernon yards, Baltimore. G. Latrobe is general agent at Baltimore and J. H. Nichol principal assistant engineer at Williamsport, Pa.

Md., Baltimore.—The Maryland & Pennsylvania Railroad, it is announced, will build additional yard tracks and make other improvements at its North Ave. station. J. S. Norris is general manager and G. E. Norris engineer at Baltimore.

Md., Baltimore.—J. S. Norris, general manager of the Maryland & Pennsylvania Railroad, confirms report that additional yard tracks are being built at the North Ave. terminal in Baltimore.

Miss., Columbia.—The Fernwood & Gulf Railroad is reported to have established engineering headquarters at Columbia, and will survey for an extension to Hattiesburg, Miss. F. B. Enoch is general manager at Fernwood, Miss.

Miss., Laurel.—The Wausau Southern Lumber Co. is reported to have completed its railroad to a point seven miles east. It will go eight miles farther into Wayne county.

Mo., Joplin.—Railroad contractors are reported meeting in Joplin with engineers of the Kansas City Southern Railroad preliminary to award of contracts for \$500,000 of reconstruction work between Joplin and Kansas City. C. E. Johnston is chief engineer at Kansas City.

N. C., Charlotte.—J. P. Gelston of Columbia, S. C., is reported to have been awarded a contract to lay track on the Piedmont Traction Co.'s interurban railway between Charlotte and Gastonia. This section is to be completed by September 7.

N. C., Salisbury.—N. B. Canless of the proposed Salisbury to Monroe railroad, is quoted saying that survey is finished to Monroe and that grading will begin after revision of the engineers' reports.

Okl., Granite.—Thos. L. Eggleston, Jr., secretary and treasurer of the Oklahoma Empire Railway Co., Granite, Okla., writes that it proposes to build 200 miles from Granite, Okla., to a point in New Mexico via Salton, Okla., and the Panhandle of Texas. Nearly all the country is either rolling or level, but some is rough. Bids for construction will be opened September 1. E. E. Colby is chief engineer. Thos. L. Eggleston, 505 2d St. N. W., Washington, D. C., is president and general manager and W. R. Finlay, Victoria, B. C., is vice-president. Other directors are Paul Slayton and Marvin Spears of Granite, Okla.

Okl., Henryetta.—An official of the Missouri, Oklahoma & Gulf Railroad is reported saying that the Hoffman Construction Co. has the general contract to build an extension from a point near Henryetta to Oklahoma City, about 102 miles, via Okemah and Shawnee. Maximum grade, .6 of 1 per cent.; maximum curvature, 4 degrees; work heavy; location survey in progress; construction to begin in about two months. J. J. Harrison is chief engineer at Muskege, Okla.

Okl., Oklahoma City.—The Oklahoma City Terminal Railway Co. is reported organized with \$75,000 capital, that being the bonus subscriptions made for the Missouri, Oklahoma & Gulf Railroad, which is to build to Oklahoma City from Henryetta, Okla. Charter will be obtained. The directors are E. F. Bisbee, president; George C. Sohlberg, vice-president; R. H. Gardner, secretary; O. P. Workman, treasurer; O. D. Halsell, J. D. O'Neil, A. C. Farmer, R. M. Conway, James Chenoweth, E. F. Sparrow and M. S. Cooter. The terminal site on East California Ave. will be secured.

Okl., Oklahoma City.—The Oklahoma City & Eastern Railway Co. is chartered to build steam and electric railroads, and proposes to construct an interurban line from Oklahoma City to Henryetta, Okla., about 90 miles. Estimated cost about \$3,000,000; survey to begin immediately. The Oklahoma Railway Co., of which A. H. Classen is president, is said to be back of the plan. Directors, J. J. Johnson, Charles Hoopes, W. J. House, Fred S. Coombes and M. L. Spittler, all of whom are connected with that company.

Okl., Oklahoma City.—John W. Shartel, vice-president and general manager of the Oklahoma Railway Co., is reported saying that construction will be resumed immediately on the El Reno Interurban to complete the line from Yukon to El Reno, Okla. The Oklahoma Railway will complete about 40 miles of new line this year and about 75 miles next year.

Okl., Oklahoma City.—The Oklahoma-Shawnee Railway Co. is reported chartered to build its proposed line from Oklahoma City to Shawnee, with a branch to Chandler, altogether about 100 miles; capital \$1,000,000; incorporators, H. A. Kroeger, Carlos Combs, M. E. Springer, A. R. Bettis and A. Cook, all of Oklahoma City. L. E. Patterson, president of the Oklahoma City Traction Co. is president.

S. C., Greenwood.—A dispatch says that the bond issue of \$150,000 to aid the proposed railroad from Greenwood to Saluda was defeated in Greenwood, Brooks and Fellowship townships.

Tenn., Memphis.—The Clarksdale, Covington & Collierville Interurban Co. has applied for an amendment to its charter to build lines on additional routes; incorporators, R. B. Nebhut, Wm. A. Percy, R. T. Fant, R. F. Tate, Walter Goodman, D. D. Saunders and W. H. Withers.

Tenn., Nashville.—The Fidelity Securities Co., which is building the Nashville & Gallatin Electric Railway, is reported to have let contract to the Gibson-Carr Construction Co. of Middlesboro, Ky., to grade 25 miles of the line, which will be about 30 miles long. About 248,000 cubic yards of earth will have to be moved.

Tenn., Nashville.—Hunter McDonald, chief engineer of the Nashville, Chattanooga & St. Louis Railway, says there is no truth in the report that the company will at an early date build second track from Nashville to Chattanooga, but it has nearly completed second track from Shellmound to Chattanooga.

Tex., Belton.—The Gulf, Colorado & Santa Fe Railway, says a dispatch from Galveston, has awarded contract to W. C. Rettiger of Belton for all bridge masonry work on its lines during the rest of the calendar year. F. Merritt is chief engineer at Galveston, Tex.

Tex., Dallas.—E. T. Moore, representing in Dallas Stone & Webster of Boston, is reported saying that a company will be incorporated to build an interurban railway from Dallas to Waxahatchie. Several miles of grade are completed. A later dispatch from Austin says that charter has been filed for the Dallas Southern Traction Co. with \$2,000,000 capital, and that the line will run from Dallas to Waxahatchie and Ennis, Tex.; incorporators, Edwin B. Parker, J. H. Tallchett and David Daly of Houston, Tex.

Tex., Greenville.—The Missouri, Kansas & Texas Railroad, says a dispatch, will spend about \$125,000 for improvements in the Greenville yards, including additional tracks, and also about \$100,000 on the Shreveport division. A. M. Acheson is chief engineer at Dallas, Tex.

Tex., Longview.—Reported that survey has begun for the contemplated extension of the Port Bolivar Iron Ore Railway to Clarks-ville, Tex., 70 miles. Col. L. P. Featherstone of Galveston and others are interested.

Tex., Ragley.—W. G. Ragley, president and general manager of the Timpson & Henderson Railway, Ragley, Tex., confirms the report that a line is to be built from Henderson to Tyler, Tex., 31 miles, but says that it is not definitely located and that engineers are in

the field. S. H. Hunt is chief engineer at Pine Hill, Tex.

Tex., Tioga.—The Tioga Commercial Club is reported planning to build an interurban electric railway to reach McKinney and Gainesville, about 50 miles. The secretary may be able to give information.

Va., Urbanna.—Reported that a meeting at West Point has approved the plan to build a railroad from West Point to Urbanna. Col. John R. Saunders of this (Middlesex) county presided.

Va., Norfolk.—Official denial is reported of the press dispatch that the Norfolk & Western Railway would build an extension to Virginia Beach, 17 miles.

W. Va., Albright.—The Cheat Haven & Bruceton Railroad Co. is chartered to build a line from Cheat Haven, Pa., on the Fairmont, Morgantown & Pittsburg Railroad, to Albright, W. Va.; headquarters at Ice Ferry, W. Va.; capital \$75,000; incorporators, Gilmer S. Hamill, Sr., Gilmer S. Hamill, Jr., Stuart F. Hamill and Scott T. Jones, all of Oakland, Md., and Frank Cunningham of Somerset, Pa. Gilmer S. Hamill writes from Oakland that 11 miles will be built from Cheat Haven to Bruceton through rough to rolling country. He is vice-president. Mr. Cunningham is president, general manager and chief engineer; S. F. Hamill is secretary, and Mr. Jones treasurer. Not ready to name date for bids.

W. Va., Cass.—The West Virginia Pulp & Paper Co. is reported rapidly extending its railroad to timber lands at the head of Elk River, about 30 miles being built. It may be extended to Webster Springs. Parris & Williams of Marlinton, W. Va., may be able to give information.

W. Va., Huntington.—The American Railways Co., J. J. Sullivan, president, 904-913 Witherspoon Bldg., Philadelphia, Pa., says a dispatch, has bought the Ohio Valley Electric Railway Co., and \$500,000 have been set aside for improvements, including double-tracking from Huntington to Kellogg, six miles. W. C. Sproul of Chester, Pa., continues as president of the Ohio Valley company. W. W. Magoon, Huntington, W. Va., is general manager.

W. Va., Keyser.—The voters of Welton and New Creek districts of Mineral county, according to a dispatch, have approved the proposed issue of \$22,500 of bonds to aid the Twin Mountain & Potomac Railroad, which will be built from Keyser to Twin Mountain, 26 miles. J. Clyde Lewis is chief engineer at Grafton, W. Va.

W. Va., Palmer.—The West Virginia Midland Railroad Co. is reported to have amended its charter to build an extension from its terminus in Webster county to a point in Randolph county, following Leatherwood Creek and Elk River. John T. McGraw of Grafton, W. Va., is president, and George A. Hechmer of Palmer, W. Va., general manager.

W. Va., Sistersville.—The Tyler Traction Co. is reported to have let contract to Board & Reed of Charleston, W. Va., for construction of its line from Sistersville to Middlebourne, W. Va. P. T. Board and Kelley Reed compose the firm. The line must be completed by June next.

STREET RAILWAYS

Ark., Fort Smith.—A dispatch says that the Fort Smith Light & Traction Co. will build an extension to Van Buren over the new bridge as soon as it is completed. J. W. Gillette is general manager.

Ga., Albany.—The Albany Transit Co. has been incorporated to build the projected electric railway in the city and suburbs; capital \$75,000; incorporators, C. W. Rawson, S. B. Brown and others, as previously reported.

Ky., Paducah.—J. T. Omberg is reported to have been given a contract to build a steel and concrete bridge over Island Creek for the Paducah Traction Co.

Ky., Somerset.—The United Water, Light & Traction Co. of Somerset will make improvements. S. Wilbury is engineer at 95 Liberty St., New York.

Okla., Enid.—The Enid Holding & Industrial Co., organized by the Enid Chamber of Commerce, will build a street railway to a new packing plant. J. M. Brandt is president.

S. C., Rock Hill.—Franchise is reported granted to the Carolina Traction Co. for street cars in Rock Hill. J. M. Cherry is reported interested.

Tex., Brownsville.—The Mayor, it is reported, has vetoed the ordinance which granted a street-railway franchise to S. A. Robertson of San Benito, Tex.

Tex., McKinney.—A dispatch says that grading has begun for the street railway, and that the line will be two miles long.

Tex., San Antonio.—A dispatch says that the San Antonio Gas & Electric Co. announces that \$250,000 will be spent during the next year for improvements to the property. Some new lines will be constructed.

Building Materials.—W. J. Beeland, Box 445, Macon, Ga., wants catalogues and prices on steel ceilings, metal and tile roofing, mantel grates and tiling, tile floors, metal frame screens, bases and caps for 16x16-inch square columns.

Building Materials.—J. L. Harris, Mooresville, N. C., wants prices on mantel, tiles, slate roof and plumbing.

Button Machinery.—Robt. J. Downey, Darien, Ga., wants addresses of manufacturers of pearl-button machinery.

Candy Machinery.—Hart Candy Co., Clarksburg, W. Va., will want prices on candy manufacturing machinery.

Cars.—See "Rails, etc."

Cars.—G. S. Landers, New Milford, N. J., wants 10 side-dump cars.

Cement Mill.—Standard Portland Cement Co., Leeds, Ala., wants second-hand 33-inch Fuller mill.

Chain.—K. B. Harvey, Fort Myers, Fla., wants 3000 feet 1/4-inch chain.

Chemical Apparatus.—James G. Nelson, Savannah, Ga., wants machinery to manufacture anhydrous ammonia from sulphite of ammonia.

Church Furnishings.—See "Seating."

Clayworking Machinery.—See "Pottery."

Coal Chutes.—W. J. Beeland, Box 445, Macon, Ga., wants catalogues and prices on iron coal chutes.

Concrete Mixer.—K. B. Harvey, Fort Myers, Fla., wants cement mixer operated by gasoline engine.

Concrete Walls, etc.—Charles E. Bolling, City Engineer, Richmond, Va., will receive bids until 3 P. M. August 16 for construction of concrete walls and invert for open sewer in Bacon Quarter Branch; plans, specifications and information may be obtained at City Engineer's office; certified check \$250.

Concentrating Machinery.—Tepalcates Mining Co., 507 R. A. Long Bldg., Kansas City, Mo., wants prices on 40-horse-power boiler; ore crusher (Dodge or Blake), 7x10; rolls 10x16; jigs; concentrating table; 25-horse-power engine; 8x10 double-cylinder hoist; 25-horse-power gasoline engine for plant in Mexico.

Conveyors.—See "Fertilizer Machinery."

Conveyors.—See "Lime-plant Equipment."

Creamery.—Walter Graham, Narrows, Va., wants information, prices, etc., on creamery.

Cotton Goods.—C. F. P. Korsell, 5502 Indiana Ave., Chicago, Ill., wants addresses of manufacturers of cotton flannels, towel, wash-cloth material and knit tubing for glove wrists.

Cotton Machinery.—George Garrett, Jones Bldg., Detroit, Mich., wants data and estimates on machinery for small plant to manufacture wrapping twine from cotton.

Curbing, etc.—Proposals will be received at office of Ward Engineer, 510 Middle St., Portsmouth, Va., addressed to W. E. Henry, chairman of Local Board of Improvements of Sixth Ward, until 8 P. M. August 18 for constructing combined concrete curb and gutter on Pearl St., between County and South Sts. Specifications, instructions to bidders, plans of curb, may be obtained from ward's engineer at 510 Middle St.; proposals to be made on blank form attached to specifications; W. E. Henry, chairman; Bascom Sykes, engineer.

Derrick Irons.—See "Rails, etc."

Disposal Plants.—Proposals received until 12 M. September 15 by Sewerage Commission, Rock Hill, S. C., for construction of three sewage-disposal plants, consisting of Imhoff tanks, sprinkler filters, contact beds and sludge beds, in accordance with plans on file in office of engineer, Thos. W. Cothran, Rock Hill; plans obtainable after August 25 from engineer; usual rights reserved; J. B. Johnson, chairman commissioners.

Ditching Machinery.—F. B. Crowell, 1029 Fourth National Bank, Atlanta, Ga., wants second-hand railroad ditcher (Brown, American or Vulcan). State particulars, delivery, terms, etc.

Dried Apples.—Louisiana Export & Stave Co., 307 Camp St., New Orleans, La., wants large quantity of apple spindler (dried apple skin and heart) and dried apples.

Drug-store Fixtures.—C. N. Burckhalter, Burnwell, S. C., wants about 120 feet of drug-store fixtures.

Electric-light Plant, etc.—A. F. N. Everett, Grand Bldg., Atlanta, Ga., wants prices on combination electric-light plant and water-pumping plant for \$10,000 residence.

Electric-light Plant.—Fowler Bros.

Land Co., 206 Frost Bldg., San Antonio, Tex., will consider propositions to locate electric light plant at Fowlerton, Tex.

Electric-light and Water Plant.—Sealed bids received by Board of Public Works, Honea Path, S. C., until noon September 5, and then opened, for furnishing machinery, boilers, pumps, engines, etc., and materials for electric-light plant and for cast-iron water pipe, valves, lead, etc., and tank for water plant; also for deep well; information and proposal blanks furnished on application to Thos. W. Cothran, consulting engineer, Greenwood, S. C.; rights reserved; certified check for 2 per cent. of amount of bid; John F. Monroe, chairman of board.

Electrical Equipment.—H. W. McCord, Port Arthur, Tex., wants prices on electrical equipment for \$10,000 store and apartment building.

Electrical Machinery.—Nashville Armature Works, Third Ave. and Commerce St., Nashville, Tenn., wants 150, 200 or 250-kilowatt 60-cycle 720 alternation 2200-6000-volt generator, speed about 450; also 500-volt direct-current five-horse-power motor, speed 300-4000.

Electrical Machinery.—Melissa Water Works Co., Melissa, Tex., wants electric or gasoline motor. Address C. R. Osburn.

Electrical Supplies.—C. K. Leslie, Coweta, Okla., wants prices on electrical supplies.

Elevators.—W. T. Crawford, Shreveport, La., wants to correspond with manufacturers of elevators operated by water pressure; to use roof tank, so that same water can be used number of times by pumping to tank after discharge.

Engine.—Gilbert D. Von Phul, Box 100, New Orleans, La., wants second-hand Carless engine; left hand; cylinder 16x24-inch stroke, with hand wheel 12 feet by 20-inch face; guaranteed.

Engines.—See "Concentrating Machinery."

Engine, etc.—Office Commissioners of District of Columbia, Washington. Proposals will be received until 2 P. M. August 15 for furnishing and delivering 3000, more or less, wire tree guards for Parking Commission, and for furnishing and delivering 18-horse-power double-cylinder locomotive traction engine, 18-horse-power single-cylinder return-flue traction engine, 8-ton dump-spreading car and 2 heavy hauling wagons, for District of Columbia Workhouse, Occoquan, Va. Specifications and form of proposal obtained from Purchasing Officer, District of Columbia. State which set of proposal and specifications is desired.

Engine.—Gulfport Lumber Manufacturing Co., Greensboro, N. C., wants 100-horse-power engine.

Excelsior Machinery, etc.—C. H. Hood, Angle, La., wants information on manufacture of excelsior, market, etc.; also prices on machinery.

Excavations.—B. F. Ayers, chairman Commissioners Galveston County Drainage District No. 2, La Marque, Tex., will receive bids until 4 P. M. September 1 for excavating 210,012 cubic yards; bids to be opened at 11 A. M. September 2 at office of A. L. Bogatto, La Marque, Tex.; information on application; E. N. Sanctuary, engineer, Galveston, Tex.

Feed-water Heater.—City of Clarksville, Tex., will open bids 8.30 P. M. August 22 on feed-water heater, efficiency not less than 200 F.; usual rights reserved; John R. Webb, City Clerk.

Fertilizer Machinery.—Moss Point Fertilizer Co., T. E. Spencer, secretary, Moss Point, Miss., wants prices on fertilizer mixing machine, elevator buckets and chain, cut flight conveyors, 30-horse-power motor and 30-horse-power stationary gasoline engine.

Fertilizer Machinery.—Hoke Fertilizer Co., Raeford, N. C., wants prices on fertilizer-mixing machinery.

Fiber Machinery.—Columbia Fiber Co., Bloomsburg, Pa., will want cotton hull fiber machinery.

Flooring, etc.—E. J. Masters, 14 Saragossa St., St. Augustine, Fla., wants prices on 13-16x2 1/4-inch M. & D. flooring, and boards 1x5 inches to 1x10 inches; also stair material 1 1/2x1 1/2 inches net in white and red quartered and straight oak.

Foundry Equipment.—Gulfport Foundry Co., Greensboro, N. C., wants prices on machines for casting pulleys; immediate delivery.

Gas Engine.—Columbus Engineering & Equipment Co., 490 Neilston St., Columbus, O., wants four-cylinder vertical 250-horse-power gas engine; direct connected or belted.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

Air Compressor.—City of Clarksville, Tex., will open bids 8.30 P. M. August 22 on air compressor, 400 cubic feet capacity; usual rights reserved; John R. Webb, City Clerk.

Air Compressor.—American Metallic Packing Co., Walnut and Clark Sts., Lexington, Ky., wants second-hand belt-driven air compressor; capacity 100 cubic feet free air. Send description, cut and lowest price.

Aeroplane Materials and Equipment.—E. A. Townsend, care of Postoffice, Tusculoosa, Ala., is interested in light gasoline engines for flying machines; wants addresses of handlers of material for building planes or aeroplanes.

Belting.—Rose Electric Co., Chemical Bldg., St. Louis, Mo., wants about 700 feet second-hand leather belting; single from 4 to 8 inches and double from 6 to 24 inches.

Bridge Construction.—B. F. Ayers, chairman Commissioners Galveston County Drainage District No. 2, La Marque, Tex., will receive bids until 4 P. M. September 1 for constructing 25 to 40 small timber bridges; bids to be opened at 11 A. M. September 2 at office of A. L. Bogatto, La Marque, Tex.; information on application; E. N. Sanctuary, engineer, Galveston, Tex.

Boiler.—City of Clarksville, Tex., will open bids 8.30 P. M. August 22 for furnishing 100-horse-power horizontal tubular boiler; usual rights reserved.

Boiler.—See "Concentrating Machinery."

Boiler.—George E. Murphy, 332 Candler Bldg., Atlanta, Ga., wants prices on 25-horse-power boiler.

Boiler.—Gulfport Lumber Manufacturing Co., Greensboro, N. C., wants 150-horse-power boiler.

Brass Rails.—H. J. Whitsett, Paragould, Ark., wants prices on brass rails for stairway and ticket office for moving-picture parlor.

Brazing.—See "Welding and Brazing Apparatus."

Bridge Construction.—Contract for erection of steel bridge across Fair River, on Rockport Rd., near Wanilla, will be let at courthouse door, Monticello, Miss., at 2 P. M. September 4, according to plans and specifications on file with W. H. Speights, clerk (no plans to distribute); certified check 10 per cent. of bid; board reserves usual rights.

Bridge Construction.—Board of County Commissioners, Rockingham county, North Carolina, will receive on September 6 at Wentworth, N. C., bids, estimates and specifications for repairing approach to Settle's bridge across Dan River, and to construct bridges across following streams: Big Beaver Island Creek at Madison; Haw River, Little Troublesome Creek, Hogan's Creek at Dalton's, Lick Fork Creek at Ruffin; sealed bids; usual rights reserved; J. P. McMichael, Clerk Board Commissioners.

Building Materials.—J. O. Thompson, 513 Slaughter Bldg., Dallas, Tex., wants prices on art glass and metal ceiling.

Building Materials.—First Baptist Church, Archibald Johnson, chairman of committee, Thomasville, N. C., wants prices on colonial columns and slate roof.

Gasoline Engine.—See "Aeroplane Materials and Equipment."

Gasoline Engine.—See "Fertilizer Machinery."

Lime-plant Equipment.—T. C. Andrews & Co., 10 Campbell's Wharf, Norfolk, Va., will receive bids October 1 on grinders, conveyors and screens.

Glove Machinery.—Wm. H. Gurd, care Union Tanning Co., Middlesboro, Ky., wants information on manufacture of cotton gloves and prices on machinery.

Hoists.—Allentown Equipment Co., 311 Commonwealth Bldg., Allentown, Pa., wants three 8x10 or larger D. C. S. D. hoists; friction or reversible.

Ice Machinery.—Hill Bros., Sylvania, Ga., are interested in prices on 8 to 12-ton ice plant.

Ice Machinery.—Walter Graham, Narrows, Va., wants information, prices, etc., on ice machinery and cold-storage plant.

Ice Machinery.—J. F. Kolar, Disputanta, Va., wants to correspond with ice machine manufacturers.

Ice Machinery.—W. C. Newman, Farmville Ice Plant, Farmville, Va., wants ammonia compressor, 8 to 12-ton ice plant (Frick preferred). State price, how long used, and where can be seen.

Ice Machinery.—F. M. Boyd, manager electric-lighting plant, Johnston, S. C., wants catalogues on ice machinery.

Ice Machinery.—George E. Murphy, 332 Chandler Bldg., Atlanta, Ga., wants prices on 15 to 20-ton ice plant.

Ice Plant.—Southern Ice & Cold Storage Co., Box 250, Greensboro, N. C., will open proposals October 15 for 50-ton ice plant.

Laundry.—Thos. W. Spicer, Box 117, Leesburg, Fla., wants prices on laundry equipment complete.

Levee Construction.—Board of State Engineers, 213 New Orleans Court Bldg., New Orleans, La., will receive proposals until noon August 21 for constructing Upper and Lower Levees on right bank of Mississippi River in Desha county, Arkansas; enlargement contents, 50,000 cubic yards and 6,000 cubic yards, respectively; deposits \$200 and \$150.

Lock and Dam Construction.—U. S. Engineer Office, Louisville, Ky. Proposals for constructing lock and dam No. 48, Ohio River, near Henderson, Ky., will be received until 11 A. M. September 7. Information on application. Lytle Brown, Captain, Engineers.

Laundry Machinery.—Hill Bros., Sylvania, Ga., want prices on complete laundry equipment.

Levee Construction.—Executive Department, Baton Rouge, La., August 7. Proposals received at office of the Board of State Engineers, Rooms 213-215 New Orleans Court Bldg., New Orleans, La., until 12 noon August 21 for construction of following levee works on Mississippi River, in Louisiana, viz.: Fifth Louisiana Levee District—Delta to Martin levee, Madison parish, raising and enlarging, contents 105,000 cubic yards, deposit \$300; Martin levee, Madison parish, raising and enlarging, 43,000 cubic yards, deposit \$200; Biggs levee, Madison parish, raising and enlarging, 90,000 cubic yards, deposit \$300; Reid levee, Madison parish, raising and enlarging, 75,000 cubic yards, deposit \$300; Hodges levee, Madison parish, raising and enlarging, 55,000 cubic yards, deposit \$300; Diamond Island levee, Madison parish, enlarging, 90,000 cubic yards, deposit \$300; Kempe levee, Tensas parish, raising and enlarging, 40,000 cubic yards, deposit \$175. Lafourche Levee District—Parish line to Belle Chasse levee, Plaquemines parish, right bank, raising and enlarging, 100,000 cubic yards, deposit required \$350. Grand Prairie Levee District—Church to Pinaud levee, Plaquemines parish, left bank, raising and enlarging and revetment, earthwork 25,000 cubic yards, length of revetment 2500 feet, deposit \$250; Walter levee, Plaquemines parish, left bank, new levee, 25,000 cubic yards, deposit \$150; Point Pleasant levee, Plaquemines parish, left bank, enlargement and revetment, earthwork 10,000 cubic yards, length of revetment 750 feet, deposit \$300; usual rights reserved; blank forms for proposal at office of Board of State Engineers; Frank M. Kerr, Chief State Engineer.

Locomotive.—G. S. Landers, New Milford, N. J., wants 36-inch-gauge locomotive.

Machinery Supplies.—Scott Machinery Co., 8 S. Forsythe St., Atlanta, Ga., wants prices on machinery supplies.

Metal Door Plates.—J. T. Gilbert, care of Mayes Grocery Co., Lakeland, Fla., wants addresses of manufacturers of metal name plates for doors.

Mining Machinery.—Paul H. Nash, 37 Lee Bldg., Spartanburg, S. C., wants prices on small-sized stamp mills and other equipment for gold mine in North Carolina.

Motor.—See "Fertilizer Machinery."

Motors.—Thos. W. Spicer, Box 117, Leesburg, Fla., wants addresses of handlers of spring motors for operating sewing machines.

Oil Burners.—American Red Rose Granite Co., Granite, Okla., wants crude oil burners for 300 and 500-horse-power stationary engines.

Office Furniture.—Linwood Afro Labor Insurance Co., Linwood, Ga., wants prices on office fixtures, including desks, tables, etc.

Paper-mill Machinery, etc.—Columbia Fiber Co., Bloomsburg, Pa., will want paper-mill machinery.

Paving.—Oakland Cemetery Board, C. J. Kramer, president, Little Rock, Ark., will receive bids until 2.30 P. M. August 29 for laying 3000 feet of curb guttering; certified check \$250; plans may be obtained from Edward Reichardt, superintendent, at cemetery.

Paving.—Proposals received at office of P. F. McDonald, City Commissioner, or William R. Ponder, Recorder, Johnson City, Tenn., until 7 P. M. September 7 for construction of bridges, sewers, storm-water drains, concrete curb and street paving with brick, asphalt, bitulithic, wood block, granite or concrete in improvements districts Nos. 7 and 8, according to plans and specifications in office of City Engineer; approximate work as follows: 5000 cubic yards excavation; 23,000 square yards of street paving; 12,000 linear feet curb and gutter; 1900 linear feet 6-inch sewer connections; 600 linear feet 15-inch T. C. drains; 11 catch-basins; 16 cubic yards reinforced concrete to cover drain 8 feet wide; certified check for 10 per cent. amount of bid; usual rights reserved.

Machine-shop Equipment.—Crescent Pump Works (W. T. Pittman and associates), Flatiron Bldg., Fort Worth, Tex., wants prices on engine lathes, drill presses, etc., for equipment of machine shop; second-hand preferred.

Manual Training School Equipment.—P. J. Krouse, Meridian, Miss., wants information, etc., on equipment for manual training school.

Milling Machine.—Tri-Cities Garage, E. E. Dowd, president, Sheffield, Ala., wants prices on 24-inch milling machine.

Mining Machinery.—American Canadian Land Co., Montrose Hotel Block, Cedar Rapids, Iowa, is interested in locating salt mining plant, and wants information relative to development and operation.

Paving.—City of Jacksonville, Fla., Philip Prioleau, City Engineer, will open bids September 5 for repaving Bay St., between Bridge and Market Sts.; 23,268 square yards.

Paving.—H. W. Claypool, Recorder, Fayetteville, W. Va., will receive bids until September 2 for construction of cement or concrete sidewalks; 2417 linear feet, 5 feet wide; 1836 linear feet, 4½ feet wide; 5421 linear feet, 4 feet wide; 2175 linear feet, 3½ feet wide; 3321 linear feet, 3 feet wide; work will include necessary grading and building of retaining walls according to specifications on file in Recorder's office; certified check \$1000; R. H. Dickinson, Mayor.

Paving.—City of Alken, S. C., will receive sealed bids until 4 P. M. August 31 for about 7500 square yards of vitrified brick street paving, with four-inch concrete base, two-inch sand; sample of brick to be submitted with bid; bids also considered on asphalt paving; plans and specifications at office of J. L. McCarter, City Clerk; usual rights reserved.

Paving.—Baltimore (Md.) Board of Awards will receive bids at office of City Register in City Hall until 11 A. M. August 23 to grade, curb and pave Guilford Ave. from 23d St. to 24th St. with sheet asphalt, partly on four-inch concrete base and partly on present cobblestone surface; specifications and proposal sheets furnished on application to office of B. T. Fendall, City Engineer.

Piledriver Hammer.—K. B. Harvey, Fort Myers, Fla., wants small piledriver hammer.

Pipe.—Allentown Equipment Co., 311 Commonwealth Bldg., Allentown, Pa., wants wrought pipe; two to six inches diameter.

Pipe, etc.—Rossland Development Co., Robt. R. Zell, engineer, Birmingham, Ala., wants prices on 8000 feet each of 1½ and 1¾ inch black pipe, 150 pair flange unions and 8 plug cocks; to stand natural gas pressure; delivered Rossland City, Ala. (now Sipsy Station, on Southern Railway).

Piping.—Board of Water Commissioners, Charlotte, N. C., invites bids on water pipe for nine-mile 24-inch main; other work and materials will be advertised for.

Piping.—Proposals received on August 24 by Board of Water Commissioners, Charlotte, N. C., for furnishing about 5500 tons 24-inch cast-iron bell and spigot water pipe and about 60 tons specials; alternate bids considered on wood pipe for about four miles of line; certified check for \$5000 must accompany bids; specifications, form of proposal and contract on file at office of superintendent of water-works and of engineer, Gilbert C. White.

Piping.—C. K. Leslie, Coweta, Okla., wants prices on pipe.

Plumbing.—H. W. McCord, Port Arthur, Tex., wants prices on plumbing for \$10,000 apartment and store building.

Plumbing.—See "Building Materials."

Pottery.—M. Badas, Ragland, Ala., wants prices on pottery equipment.

Pulley Blocks.—See "Ralls, etc."

Pumps.—C. K. Leslie, Coweta, Okla., wants prices on pumps.

Pumps.—John L. Barr, Isoline, Tenn., wants names of dealers in pumps (dirty or clean water) operated by gasoline for coal mines.

Rails.—Oklahoma Empire Railway Co., Thos. L. Eggleston, Jr., secretary, Granite, Okla., wants prices on second-hand 65-pound steel rails.

Rails.—G. S. Landers, New Milford, N. J., wants 90 tons 30-pound relaying rails.

Rail, etc.—Tar River Lumber Co., Rocky Mount, N. C., wants one mile new 45-pound steel rail, with angle plates and bolts complete; quick shipment; quote delivered Rocky Mount.

Rails, etc.—Russell Manufacturing Co., Alexander City, Ala., wants 16-pound rail to lay two rails 1000 feet long; 12-pound rail to lay two rails 1200 feet long; switch or frogs for each, with fastenings and spikes; two one-half-yard dumping concrete cars and two one-yard dumping sand cars, all 24-inch gauge; set of five or six-ton derrick beams complete; four single 12-inch pulley blocks and one 12-inch snatch block; 900 feet one-half-inch wire rope for hoisting engine and derrick; new or second-hand; immediate delivery. State prices delivered Alexander City.

Rails, etc.—John F. Riley Foundry and Machine Works, Charleston, S. C., wants two miles 20 to 30-pound relaying rails, complete with splice bars, bolts and spikes. Give price f. o. b. cars Charleston.

Rails.—F. B. Crowell, 1020 Fourth National Bank, Atlanta, Ga., wants 16 miles 56-pound relaying steel rail.

Road Construction.—Road Commissioners of supervisors district No. 4 of Monroe county, Aberdeen, Miss., receive sealed bids up to 2 P. M. September 5 at office of Chancery Clerk of Monroe county, Mississippi, for construction of grades and drainage, including culverts and tiling, upon (1) Aberdeen and Prairie Station Rd., 10.26 miles; (2) Aberdeen and Egypt Rd., 10.75 miles; (3) Aberdeen and Gibson Rd., 9.53 miles; (4) Strong Station Rd., 9.52 miles; (5) new Muldon Rd., 3.1 miles; surveys, profiles, estimates, plans and specifications on file with clerk of board of supervisors, and may be inspected by prospective bidders; also be had at office of engineer, L. G. Smith, Aberdeen, Miss.; work includes 193,649 cubic yards grading; 2381 cubic yards concrete; 268 feet 15-inch pipe; 420 feet 18-inch pipe; 942 feet 24-inch pipe; 756 feet 36-inch pipe; certified check for \$1000, payable to order of Wm. H. Carlisle, secretary; usual rights reserved.

Road Construction.—Board of Road Commissioners, Knoxville, Tenn., is now asking bids for repairing Dry Gap, Island Home, Martin Mill and Pickens Gap pikes; also for grading two miles of Cardwell Rd., two miles of West Emory and one and one-quarter miles of Emory Rds.; G. W. Pearsall, County Engineer.

Road Construction.—Bids received at office of Clerk of Tazewell county, Tazewell, Va., until noon August 31 for grading and macadamizing following roads in Clear Fork district, about eight miles; Jeffersonville district, about 12 miles, and in Malden Spring district, about 15 miles; macadam on all roads to be an average width of 12 feet; plans and specifications at office of Clerk of Tazewell county, Tazewell, Va.; of State Highway Commissioner, Richmond, Va., and of R. B. Williamson in Graham, Va.; bids received on any one or on all of above-named sections; certified check for 2 per cent. of amount bid; usual rights reserved; Supervisors of Tazewell county, F. Thompson, chairman.

Road Construction.—Grainger County Road Commission, A. M. Nance, secretary, Rutledge, Tenn., will receive bids until noon August 19 for grading 15 miles of road; work is divided into 7½-mile sections, on which

separate bids are to be submitted; plans and specifications on file with engineer at Rutledge; certified check for \$500 to be deposited with bid on each section or for \$1000 for both sections.

Road Construction.—Bids will be opened August 25 and August 29 on construction and maintenance of about 150 miles sand-clay roads in first, second and third districts of Union county, Mississippi; W. G. Blas, chairman road commissioners, and A. C. Rojourner, highway engineer, both of New Albany, Miss.

Roofing.—E. M. Jordan, 548 Granby St., Norfolk, Va., wants prices on tile roofing.

Rock Crusher.—W. B. Williams, contractor, St. Petersburg, Fla., wants new or second-hand rock crusher. Give price and description.

Screens.—See "Lime-plant Equipment"

Seating.—St. John's M. E. Church South, Anderson, S. C., wants pews and furnishings. Address John N. Bleckley.

Seating.—I. T. Beauchamp, Castlewood Supply Co., Castlewood, Va., wants prices on opera chairs for halls and churches.

Sewer Construction.—Chase City, Va., wants to let franchise for installation of sewer system; R. D. Patterson, president Commercial Club.

Lathe.—Tri-Cities Garage, E. E. Dowd, president, Sheffield, Ala., wants prices on 24-inch lathe.

Sewer System.—City of Tampa, Fla., D. B. McKay, Mayor, wants to employ engineer to make plans and estimates for sanitary system.

Sewer Construction.—Sealed bids received at Clarksdale, Miss., until 8 P. M. September 5 for sewer material and construction. (See "Water-works and Sewer Construction.")

Sewer Construction.—City of Prescott, Ark., opens bids 1.30 P. M. September 6 at office of M. W. Greeson, secretary board of commissioners sewer district No. 1, for 25,500 cubic yards excavation, laying 4,900 linear feet sewer pipe and building of 120 manholes and a sewer treating plant; James W. Beebe, engineer, Poteau, Okla.

Steam Shovels.—Eastern Railway Supply Co., 413 American Bldg., Baltimore, Md., wants No. 1 and No. 0 Thew steam shovels.

Sewer Construction.—Baltimore (Md.) Board of Awards receives bids at office of City Register, City Hall, until 11 A. M. September 6 for constructing lateral sewers in district 20-B, sanitary contract No. 74; section No. 4 of high-level interceptor, sanitary contract No. 75, and storm-water drains, storm-water contract No. 13, as shown on plans on file with Calvin W. Hendrick, chief engineer of Sewerage Commission; specifications and plans can be obtained upon application at office of Sewerage Commission, Room 904 American Bldg.; following charges will be made for each specification and blueprint: lateral sewers in district 20-B, \$10; section No. 4, high-level interceptor, \$5; storm-water drains, storm-water contract No. 13, \$5; certified checks to accompany bids are for \$450, \$2500 and \$550, respectively; approximate quantities, lateral sewers in district 20-B, 61,785 linear feet vitrified pipe sewer, 8 to 24 inches diameter; 510 cubic yards concrete masonry; 3000 linear feet underdrains; 4100 linear feet manholes; 348 manhole frames and covers; 100 drop connections for lateral sewers; 25,800 linear feet vitrified pipe house connections; 3900 branches on 6 to 24-inch pipe; 1100 linear feet vitrified pipe standpipes. Section No. 4, high-level interceptor, 11,000 cubic yards excavation in trench for 82-inch diameter brick and concrete sewer; 126 linear feet excavation in tunnel for 82-inch diameter brick and concrete sewer; 450 cubic yards brick masonry; 3125 cubic yards concrete masonry. Storm-water drains, 21,800 cubic yards excavation for 138x99-inch drain; 16,600 linear feet vitrified pipe circular drain, 15 to 45-inch diameter; 6090 linear feet inlet connections, 12 to 18-inch diameter; 450 cubic yards brick masonry; 3544 cubic yards concrete masonry; 289,920 pounds reinforcing steel; 5500 linear feet underdrains; 3500 cubic yards embankment; 4400 cubic yards rock excavation; 808 linear feet manholes and drop wells; 196 inlets; 250 linear feet granite curb; 350 linear feet resetting curb; 50 square yards repaving; Charles England, chairman Sewerage Commission.

Steel Bars, etc.—Proposals received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10.30 A. M. September 1, and then opened, for furnishing mechanical-bond steel bars and lumber; blanks and information relating to this circular (644) may be obtained from this office or offices of assistant purchasing agents, 24 State St., New York City; 614 Whitney-Central Bldg., New Orleans, La., and 1086

North Point St., San Francisco, Cal.; also from the U. S. Engineer offices in the following cities: Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburg, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston, Commercial Club, Kansas City, Chamber of Commerce, Quincy and Chamber of Commerce and Board of Trade, Tacoma. F. C. Boggs, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

Vault Doors.—Georgia Agricultural Works, Fort Valley, Ga., wants pair second-hand vault doors.

Wagon Material.—Gower Wagon Co., E. N. Gower, manager, Gainesville, Ga., wants prices on wagon material.

Water Main.—City of Newbern, N. C., will open bids September 1 for furnishing 1500 feet of six-inch standard cast-iron pipe for water main, delivered f. o. b. cars Newbern; bids must be addressed to F. T. Patterson, clerk; usual rights reserved.

Water Meters.—Charles Wheeler, Jr., City Clerk, Muskogee, Okla., will receive bids until 10 A. M. August 15 for furnishing water meters as follows: 50 1-inch meters, 100 3/4-inch meters and 2000 1/2-inch meters; certified check 10 per cent. amount of contract; specifications can be secured from water superintendent, Muskogee, or consulting engineer, Alexander Potter, 114 Liberty St., New York; E. H. Fleming, commissioner water, light and sewer committee.

Water Piping.—Oakland Cemetery Board, C. J. Kramer, president, Little Rock, Ark., will receive bids until 2:30 P. M. August 29 for laying 1000 feet one-inch galvanized water pipe, with sufficient hydrants; plans may be obtained from Edward Reichardt, superintendent, at cemetery.

Water-wheels.—H. W. Battan, R. F. D. No. 5, Rockingham, N. C., wants turbine water-wheel.

Water-works Construction.—City of Wainwright, O., is ready to let contract for construction of water-works system; \$29,000 bond issue voted. Address The Mayor.

Water-works.—Chase City, Va., wants to let franchise for installation of water-works; R. D. Patterson, president Commercial Club.

Water-works.—See "Electric-light and Water Plant."

Water-works and Sewer Construction.—Sealed bids received by Commissioners, Clarksdale, Miss., until 8 P. M. September 5 for following materials and construction: About 1700 feet of 8-inch, 44,000 feet 6-inch and 8900 feet 4-inch cast-iron water mains, with hydrants, valves and specials; 6-inch artesian well; two pumps; air compressor; 2550 feet 18 to 30-inch pipe storm sewers and 22,000 feet 8 and 10-inch sanitary sewers, with necessary branches, flush tanks and manholes; plans, specifications and proposal blanks obtainable at office of W. S. Bobo, civil engineer and general superintendent; bids to be addressed to City Clerk, M. W. Purnell; certified check or bond for at least 3 per cent. amount of proposal.

Water-works.—City of Granby, Mo., receives proposals until 7 P. M. August 24 for furnishing cast-iron pipe and specials, wrought-iron pipe and fittings, gate valves, boxes, hydrants, deep-well pump and equipment, oil engine, steel tower and tank; specifications may be had by addressing S. L. Kenney, clerk, or J. P. Michel, engineer, 11 Frisco Bldg., Joplin, Mo.

Water-works.—Fowler Bros. Land Co., 266 Frost Bldg., San Antonio, Tex., will consider propositions to locate water-works at Fowlerton, Tex.

Water-works.—F. S. Perry, Gorman Compress Co., Gorman, Tex., may want 10,000-gallon cypress water tank and 40-foot galvanized-iron tower; also 6x36 deep-well pump, Burnham preferred.

Water System.—See "Electric-light Plant, etc."

Water-works.—Committee of Council, Norfolk, Va., will meet on September 1 at 8 P. M. to receive definite propositions for additional water supply; all other propositions will then be eliminated; all persons desiring to present propositions at this time are invited to be present and to submit same in definite form, with maps, charts and figures; R. E. Steed, City Clerk.

Water-works.—City of Northfork, W. Va., R. B. Roberts, Mayor, will open bids about October 1 for water system, to include two concrete tanks of 30,000 gallons capacity each and filter for same; Walter Prockter, engineer.

Well-drilling.—Bankers' Oil & Gas Co., J. H. Ross, president, Muskogee, Okla., is ready to let contract to drill well 2000 feet

(if necessary); location 18 miles from McAlester, Okla.

Well-drilling Machinery.—L. F. Ervin, Scotts, N. C., wants addresses of manufacturers of and dealers in well-drilling machinery.

Wire Rope.—See "Ralls, etc."

Wire Rope.—Allentown Equipment Co., 311 Commonwealth Bldg., Allentown, Pa.,

wants 1/2 to 1 1/2 second-hand wire rope; state lengths.

Wood-splitter.—E. F. Kelly, 218 1/2 9th St., Miami, Fla., wants wood-splitter for 12 to 16-inch blocks.

Welding and Brazing Apparatus.—James G. Nelson, Savannah, Ga., wants machinery and chemicals to experiment with Thermit welding process; also cast-iron brazing.

INDUSTRIAL NEWS OF INTEREST

Sale of 700 Tons Relaying Rails.

George M. Newhall Engineering Co., Philadelphia, has lately filled an order for 700 tons of 70-pound relaying rails for the H. D. Eichelberger Syndicate for use in building its electric railway through Burlington, Graham and Haw River, N. C.

Wants a Manager.

A superintendent and manager is wanted by a company organizing in the South to manufacture church furniture. The company has ample capital, with buildings and machinery ready for operation. Address Southern Church Furniture Co., care of Manufacturers Record.

Wants Executive Position.

A single man, 35 years of age and \$5000 to invest, advertises in our Classified Opportunities columns for an active executive position with manufacturing or brokerage concern. If you are looking for a man or for a position, follow his example and try our Classified Opportunities department.

Melan System Concrete Steel Bridge.

The contract for a two-span concrete-steel arch bridge has been awarded by the town of Massena, St. Lawrence county, New York, to Pratt & Phillips, Watertown, N. Y. The Concrete-Steel Engineering Co. of New York is the designing and consulting engineering company for the work. The construction will be the Melan system of concrete-steel work. B. S. O'Neill is the Town Supervisor.

Sales Agent Wanted.

A demand for sales agents is reflected in our Classified Opportunities columns in the advertisement for agents to sell feed-water heaters, evaporators, condensers and other power-plant equipment. This is for a New York city advertiser who appreciates the opportunities offered in the columns of the Manufacturers Record for reaching all sections.

Electric Plant for Sale.

The electric-light and power plant of the Manatee Electric Co., Bradentown, Fla., is offered for sale in our Classified Opportunities columns. The company has valuable franchises in the three principal towns of the Manatee River district—Bradentown, Manatee and Palmetto. Over 6000 commercial lights and over 200 street series tungsten and arc lights are in operation, with a plant of ample capacity for expanding the business.

Richmond Branch of Western Electric

The Western Electric Co., 463 West St., New York, is showing its faith in the prosperity and great future of the South by making arrangements for establishing an important branch in Richmond, Va. A complete stock of telephone supplies and apparatus, general electric outfits, etc., will be carried. This will enable the company to give its customers in this territory prompt service. H. W. Hall, formerly manager of the Denver branch, will have charge of the Richmond organization, consisting of specialists in the various lines handled.

Sales Office for Railway Equipment.

An office has been established in the Harrison Building, Philadelphia, by Harry W. Pickett, formerly with the Cincinnati Equipment Co., where he will handle the sales of railway equipment and supplies. He represents the Vulcan Iron Works, Wilkes-Barre, Pa., for the sale of locomotives; the Wm. J. Oliver Company, Knoxville, for dump cars, and the Geo. M. Newhall Engineering Co., Philadelphia, for industrial locomotive cranes and relaying rails. In addition to these equipments he will handle a limited amount of second-hand outfits.

Sales Manager of the Pulsometer Co.

The general sales manager of the Pulsometer Co., 17 Battery Pl., New York, F. B. DeGress, was for 10 years the New York district manager of the Crocker-Wheeler Company of Ampere, N. J., and recently resigned to assume the new position. Besides looking after the sales department, Mr. DeGress is

carrying on a series of experiments with a view to improving certain features of the pulsometer in order to make it suitable for general pumping work in power plants, industrial establishments, etc. By this means he expects the pulsometer to become as popular for this class of work as it has already become in the general contracting field.

Geological Work in Engineering.

The value of geological work in the various branches of engineering, as well as in the usual oil and mining developments, is shown in the increasing work of geological engineers in making examinations and reports for engineering projects. Frederick G. Clapp, consulting geological engineer, Pittsburg, with his assistants, are now making extensive examinations of various mining properties in Eastern West Virginia and in the natural-gas and oil fields of Ohio. His consulting business is constantly increasing, and many of his recent reports have had a direct bearing on engineering projects contemplated.

Lawson Tramways for Arizona Mines

Southern concerns are reaching out for business as illustrated by a contract just closed by the Consolidated Tramway Co., Roanoke, Va., for the installation of a Lawson tramway near Chloride, Ariz., for the Rainbow Mountain Mining Co. of Denver. The tramway will be about two miles long, and will be used for transporting gold ore from the mines to a railroad siding. The tramway terminals will be equipped with automatic loading and discharging devices by means of which one man will be able to load, transport and discharge from 100 to 200 tons of ore per day of 10 hours without assistance.

New Sheet Mills of the American Rolling Mill Co.

An important event, marking an epoch in the progress of the American Rolling Mill Co.'s plant at Middletown, O., occurred on August 7, when at midnight, surrounded by a large crowd of interested spectators, the first sheet of ingot iron was drawn through the rolls of the new sheet mill at the East works, Middletown. Just 10 years ago the first pigs of iron were turned into ingots in the then infant industry of Middletown. These new mills, together with additional ones to be opened by October 1, will make eight sheet mills then in operation, and about 2300 men will be employed.

Recent Sales of the Vilter Company.

Recent sales of the Vilter Manufacturing Co. of Milwaukee include the following: Liberty Light & Power Co., Liberty, Tex., five-ton ice plant; Port Arthur (Tex.) Water Co., 12-coil ammonia condenser; National Brewing Co., New Orleans, 100-ton refrigerating plant, including two 15x30-inch direct-connected Corliss engines; National Ammonia Co., St. Louis, a 9x24-inch heavy-duty Corliss engine; the Kurth Company, Columbus, Wis., 24x42-inch Corliss engine for malthouse at Milwaukee; H. D. Foss & Co., confectioners, Boston, 30-ton refrigerating plant and 12x30-inch Corliss engine; B. J. Johnson Soap Co., Milwaukee, 16-ton refrigerating machine driven by a 10x24-inch girder Corliss engine; Fabst Brewing Co., Kansas City, Mo., a 13-ton refrigerating machine. Other sales were made in Canada and widely-separated sections of the United States.

"Adamantile" a Southern Tile Product

The manufacture of the form of tiling that has for centuries been extensively used in the flooring of Spanish, Cuban, Mexican and other foreign buildings has been developed after a considerable effort and expense by the National Mosaic Flooring Co., 65 St. Francis St., Mobile, Ala. "Adamantile" flooring tiles are made of Lafarge cement and French colors, under hydraulic pressure of 4500 pounds per square inch, producing a tile nearly one inch thick, in sizes usually 8x8 inches and 6x6 inches, of over 250 different color designs. The price of Adamantile is said to be not more than that of high-grade ceramics and less than that of marble. Two

carloads of this tiling were recently shipped to Porto Rico, where it has been favorably received, and further orders are expected from that source. It has been extensively used in Mobile, where it has been manufactured for the past three years, and it is now the intention of the owners to extend the sales to other sections. The present owners are W. F. Tebbetts, for 10 years collector of customs at Mobile; F. Benemelis and Captain Danner of the Mobile Coal Co. Branch offices and showrooms have been established in the Contractors and Builders' Exchange, New Orleans, and in the Woodward Bldg., Birmingham.

Woodworking Plant for Sale.

An owner is offering for sale an entire plant with an established trade of over 25 years and an annual business of over \$600,000. The plant includes 13 acres in one of the principal cities of Georgia, covered with buildings, sheds and lumber yard. Main building is of brick, 80x200, two stories, and equipped for manufacturing sash, doors, blinds and interior wood work. The office building is of brick, 70x100, three stories. There are two brick drykilns, two warehouses, eight lumber sheds, stables, garage, two wells supplying water, etc. For information address "Manufacturing Plant," care of Manufacturers Record.

Excursion for Factory Employees.

What was said to be the greatest gathering of factory employees ever seen in Michigan City, a favorite excursion point on Lake Michigan, was held there when the Dodge Manufacturing Co.'s force of Mishawaka, Ind., visited that place recently as guests of the company as represented by its president, M. W. Mix. The big party traveled in 34 railway coaches, and the enthusiasm of the members and the loyalty of the workers to this company of manufacturers of transmission machinery was shown in many ways. It was an occasion long to be remembered by the participants and one which illustrates the value of close acquaintanceship and good-fellowship between the responsible officers and the working force in large industrial plants.

Waterproof Portland Cement.

An official of the Tidewater Portland Cement Co., whose modern cement plant is located at Union Bridge, Md., stated to a representative of the Manufacturers Record that the company proposes to manufacture a waterproof Portland cement, and in regard to this said: "This product is the outcome of years of scientific investigation on the part of Mr. Richard K. Meade, general manager of the company, who is also a chemist of international reputation in the cement industry, as well as the author of the first American book treating exclusively of the manufacture of Portland cement. The new waterproof Portland cement is used just as is ordinary Portland cement and in the same proportions. Concrete made from it, however, is absolutely watertight, and hence cellar walls, concrete blocks, etc., made with it will not show dampness. The new Tidewater waterproof Portland cement has been thoroughly tested out in practical work as well as in the laboratory. Its composition is based on purely scientific principles. The new product is obtained partly by special treatment of the cement clinker and partly by addition of suitable chemicals which possess in themselves marked binding properties and which do not injure the cement, but, instead, add to its good qualities. It contains no organic matter and nothing which can in any manner injure concrete in which it is used. Moreover, the materials used are not volatile, and hence remain permanent, whereas most waterproof compounds now used consist of oils, soaps or waxes, which are more or less volatile, and hence unlikely to be permanent waterproofers. These wax and oil compounds are all of them devoid of cementing properties themselves, and so usually detract from the strength and binding properties of the cement with which they are mixed. Among those who have tested the new product are the well-known Southern chemists, Messrs. Froehling & Robertson of Richmond, Va., whose tests follow: Fineness—Residue on the 100-mesh sieve, 1.4 per cent.; residue on the 200-mesh sieve, 15.3 per cent. Setting time—Initial, 2 hours and 30 minutes; complete, 4 hours. Constancy of volume test—Accelerated (5 hours in steam), good. Tensile strength—Neat, one day, 246 pounds; neat, seven days, 551 pounds; sand (1:3), seven days, 259 pounds. Mr. R. E. Bell, formerly Eastern sales manager of the McCormick Waterproofing Portland Cement Co., has been added to the selling force of the Tidewater Portland Cement Co., and will push this feature of the business."

TRADE LITERATURE.

"Titelock" Metal Shingles.

An attractive postal folder is being sent out by the Milwaukee Corrugating Co. of Milwaukee calling attention to its booklet on "Titelock" metal shingles. An important feature of these shingles as noted in this folder is that each single shingle is dipped in spelter after being formed and made to lock tight by a unit system. They are claimed lightning-proof, watertight and fireproof.

Portsmouth (Va.) Belt Line Railroad.

A pamphlet has been issued for distribution by the Portsmouth Business Men's Association describing the Belt Line Railroad, with several illustrations of the road and industries located near it, and giving a sketch of its origin, growth and significance. It is stated that 600 to 800 cars are daily handled over the line and that the opportunities for new industries are excellent.

The Fillmore Concrete Mixer.

The three types of concrete mixers manufactured by the Fillmore Machinery Co., Fillmore, N. Y., with sales department at 512 Race St., Cincinnati, are illustrated and described in the catalogue recently issued. These three types are the Fillmore continuous mixer, the Fillmore batch mixer and the Fillmore Junior mixer. The features of each are described with the particular advantages and use of that form. This catalogue and any information required will be sent on request made to the Cincinnati office.

The Corr-Mesh System of Building.

The Corr-Mesh system of constructing mills, factory and other buildings is illustrated, with detail drawing of roof and walls, in our advertising pages. This system has been developed by the Corrugated Bar Co., St. Louis, and extensively used. The cost of walls of the building shown in the advertisement is stated as less than eight-inch brick walls would have cost. It is also used for partitions, floors and ceilings, taking the place of both studding and laths. The company has issued a 48-page handbook, with description of the Corr-Mesh system, giving all construction details.

"Navy Special" Leather Belting.

A folder describing and illustrating the "Navy Special" waterproof belting manufactured by the Baltimore Belting Co., Baltimore, has been issued for distribution. It is stated that although this belting was primarily intended for service where water, steam and moisture would injure ordinary leather belting, it is perfectly adapted to every kind of power transmission, indoors and out. It is claimed that it will successfully withstand high speeds, small pulleys, hot and cold water, steam, etc., and is well adapted to general hard service and all classes of marine work and engineering belting requirements.

Metal Rib Plaster Board.

A pamphlet published by the Metal Rib Plaster Board Co., 38 W. 32d St., New York, illustrates and describes its product and states the advantages in its use. Metal rib plaster board is composed of alternate layers of strong absorbent paper cemented together with waterproof material. It is stiffened transversely with metal ribs every eight inches and reinforced at right angles to the ribs with wire every two inches. Adhesion between the plastering material is effective and further strengthened by the plaster clinches through the perforations. The board is 24 inches wide and is nailed directly to the studding or beams.

Iron and Steel Roofing Sheets.

The American Sheet & Tinplate Co., Frick Bldg., Pittsburgh, has issued a "Roofing Catalogue" showing the different forms and uses of "Apollo" roofing, "American" roofing and other products of the company. It illustrates the seven standard widths of black, painted and galvanized sheets, and gives weights per square of each. Ridge rolls and cappings, wall flashing, weatherboard siding, plain and rock-face brick sidings and stone sidings are shown, also the Cambridge rigid reversible metal lath. The method of applying corrugated sheets for roofing and siding is shown and diagrams given for taking measurements.

Hydraulic Pumps and Accessories.

The hydraulic pump section of the manufacturing business of the Watson-Stillman Company, 50 Church St., New York, is described and illustrated in catalogue No. 81, which supersedes No. 71. This catalogue presents a comprehensive exposition of hydraulic pumps and accessories. The printed

matter published to cover the various manufactures of this company comprises over 900 illustrated sheets, divided into a series of catalogues. In case of a special machine being required, the company maintains special facilities for producing it in a prompt and satisfactory manner.

Triumph Alternating-Current Generators.

The direct-connected type of alternating generators manufactured by the Triumph Electric Co., Cincinnati, is described and illustrated in bulletin No. 481 recently issued. These generators are adapted to either engine or water-wheel connection, are described as being modern in every respect and constructed from the best materials. Full consideration is given to the important question of power factor in connection with induction motors. The ratings are based upon the output on non-inductive load. Thus a machine rated at 500 kilowatts will deliver 500 kilowatts at unity power factor and will deliver 500 kilo-volt amperes to loads of lower power factor. The character of insulation used on these machines is said to be such that it would suffer no deterioration even with a continuous operating temperature rise of 50 degrees centigrade. The construction of parts, the efficiency, regulation and tests are all described. Illustrations of a 250 K. V. A. and a 300 K. V. A. generator of 2400 volts, 60 cycles, three-phase, are included.

Rice Acreage.

The estimate of rice acreage in the South by the Southern Rice Growers' Association at Beaumont, Tex., in co-operation with Government officials, is 705,500 acres, of which 371,200 acres are in Louisiana, 238,300 acres in Texas, 76,800 acres in Arkansas, 11,600 acres in South Carolina, 2800 acres in Georgia, 2800 acres in Mississippi, 900 acres in Alabama, 700 acres in Florida and 600 acres in North Carolina.

FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS RECORD,

Baltimore, Md., August 16.

The Baltimore stock market has been dull during the past week. The trading showed sales thus: United Railways common, 18½ to 18; do. incomes, 63¼ to 62½; do. funding 5s, 87½ to 86½, with last sale at 87; United 4s, 86 to 85; do. notes, 99½ to 99¾, with last sale at 99½; Consolidated Gas, Electric Light & Power common, 92; do. preferred, 98½ to 98¾; do. 4½s, 87 to 86¼; Consolidated Gas 4½s, 97¼; Seaboard 4s, stamped, 87; Mt. Vernon-Woodberry Cotton Duck 5s, 78 to 77½, reacting to 77¾; G.-B.-S. Brewing income, 5; do. 4s, 43.

Bank stock sold as follows: Marine, 43½; German-American, 107; Citizens', 41¼.

Continental Trust sold at 218; Maryland Casualty, 92 to 92½; American Bonding, 76½; Fidelity & Deposit, 151½ to 150; Maryland Trust common, 96; do. preferred, 115 to 116; Baltimore Trust, 169½; Mercantile Trust, 146¼.

Other securities were traded in thus: Fairmont & Clarksburg Traction 5s, 100½ to 100¾; Northern Central Railway stock, 127¾ to 128; Atlantic Coast Line convertible debenture 4s, 99½ to 99; Baltimore Electric 5s, stamped, 96; Columbia Railway, Gas & Electric 5s, 94; Houston Oil common, 9¾ to 8¾, reacting to 10, with last sale at 9½; do. preferred, 75½ to 72½, with last sale at 72¾; Consolidation Coal, 100½; Norfolk & Portsmouth Traction 5s, 89¼; Georgia & Alabama Consolidated 5s, 105¼ to 106; Jamison Coal & Coke (George's Creek) 5s, 93 to

92½; Norfolk Railway & Light 5s, 99¾; Georgia, Carolina & Northern 5s, 105; West Penn Traction 5s, 97; Baltimore Electric preferred, 39½; Baltimore City 5s, 1916, 104; do. 3½s, 1980, 87½; do. 4s, 1955, 101; Chicago Railway 5s, 99¾; Atlanta & Birmingham 4s, 87; Norfolk Street Railway 5s, 105 to 104¼; Lexington Railway 5s, 95½; Baltimore Traction (North Baltimore division) 5s, 110.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended August 16, 1911.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line.....	100	123	124
Atlantic Coast of Conn.....	100	240	246
Norfolk Railway & Light.....	25	25	26
Seaboard Co. Common.....	100	23	27
Seaboard Co. 2d Pfd.....	100	54	60
United Rys. & Elec. Co.....	50	17¾	18
Virginia Railway & Power.....	100	35	38¼
Virginia Railway & Power Pfd.....	100	75	79

Bank Stocks.	Par.	Bid.	Asked.
Farmers & Merchants.....	40	52¾	53
First National.....	100	147¾	148
Maryland.....	20	27	27
Mechanics.....	100	180	185
Mercantile.....	100	28	28
Union.....	100	150	150
Western.....	20	40¾	41

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
Baltimore Trust.....	100	169½	170
Continental Trust.....	100	216	218
Fidelity & Deposit.....	50	150	150½
Fidelity Trust.....	100	230	230
Maryland Trust.....	100	95½	97
Maryland Trust Pfd.....	100	116	116
Maryland Casualty.....	25	92	94
Mercantile Trust & Deposit.....	50	146	146
Safe Deposit & Trust.....	100	535	535
Union Trust.....	50	69	69
U. S. Fidelity & Guaranty.....	100	166	169

Miscellaneous Stocks.	Par.	Bid.	Asked.
Con. Gas, Elec. Lt. & P. Com.....	100	91	92
Con. Gas, Elec. Lt. & P. Pfd.....	100	98¾	99
Consolidation Coal.....	100	100¼	102
G.-B.-S. Brewing Co.....	100	¾	2¾

Railroad Bonds.	Par.	Bid.	Asked.
Atlantic Coast 1st 4s.....	94	95½	96
Atlantic Coast Conv. Deben. 4s.....	98¾	99¼	99½
At. Coast (Conn.) 4s, Cfs., 5-20s.....	92	92	92
Carolina Central 4s.....	95	95½	96
Charleston & West. Car. 5s.....	106¼	106¼	106¼
Coal & Coke Railway 5s.....	95	96¼	96¼
Coal & Iron Railway 5s.....	102	102½	102½
Georgia & Alabama 5s.....	106	106¼	106¼
Georgia & Alabama Ter. 5s.....	104	104	104
Georgia & Florida 5s.....	76	78¼	78¼
Georgia, Car. & North. 1st 5s.....	105¼	105¼	105¼
Georgia Southern & Fla. 1st 5s.....	107	107	107
Macon, Dublin & Savannah 5s.....	97	98¼	98¼
Maryland & Pennsylvania 4s.....	88	88	88
Raleigh & Atlantic 1st 6s.....	113¼	114¼	114¼
Seaboard 4s, Stamped.....	87	87½	87½
Seaboard Refunding 4s.....	80¾	81½	81½
Seaboard & Roanoke 5s.....	106	106	106
Virginia Midland 5th 5s.....	106¼	106¼	106¼
Western Maryland 4s.....	87	87	87

Street Railway Bonds.	Par.	Bid.	Asked.
Anacostia & Potomac 5s.....	101	101	101
Atlanta Con. Street Railway 5s.....	104¾	104¾	104¾
Baltimore City Passenger 5s.....	100	100½	100½
Baltimore City Passenger 4½s.....	100	100	100
Baltimore, Sp. Pl. & C. 4½s.....	97½	97½	97½
Baltimore Traction (N. B.) 5s.....	110	110½	110½
Charleston City Railway 5s.....	103	103	103
Charleston Con. Electric 5s.....	95	97	97
City & Suburban 5s (Balto.).....	105	105	105
City & Suburban 5s (Wash.).....	103½	105	105
Fairmont & Clarksburg Traction 5s.....	100¼	100¼	100¼
Knoxville Traction 5s.....	103	103	103
Lake Roland Elevated 5s.....	109¼	109¼	109¼
Lexington Railway 1st 5s.....	96¼	96	96
Maryland Electric Railways 5s.....	98¾	98½	98½
Norfolk & Portsmouth Traction 5s.....	88	88	88
Norfolk Railway & Light 5s.....	95	95	95
Norfolk Street Railway 5s.....	104	104½	104½
United Railways 1st 4s.....	84¾	84¾	84¾
United Railways Income 4s.....	62½	62¾	62¾
United Railways Funding 5s.....	86¾	88	88
United Railways 5s, Notes.....	99¾	99¾	99¾

Miscellaneous Bonds.	Par.	Bid.	Asked.
Ala. Con. Coal & Iron 5s.....	80	86	86
Baltimore Electric 5s, Stp.....	95½	96	96
Consolidated Gas 5s.....	109	109	109
Consolidated Gas 4½s.....	97	97½	97½
Con. Gas, Elec. Lt. & P. 4½s.....	85¼	86¾	86¾
Con. Gas, Elec. Lt. & P. 5s, Notes.....	100	100	100
Consolidation Coal Refd. 5s.....	94	94	94
G.-B.-S. Brewing 1st 4s.....	42	44	44
G.-B.-S. Brewing Income 5s.....	4¾	4¾	4¾
Mt. Vernon-Woodberry Cot. Duck 5s.....	77½	78½	78½
United Elec. Lt. & P. 4½s.....	93½	93½	93½

FINANCIAL CORPORATIONS.

Ala., Anniston.—Official: The Land Title Guaranty Co., recently incorporated, is a re-incorporation of the business heretofore operated by the Alabama Abstract Co. since 1885; capital \$15,000. Directors: Rutherford Lapsley, president and treasurer; Ellen Lapsley, secretary, and Jos. J. Arnold.

Ala., Childersburg.—The First National Bank of Childersburg is chartered; capital \$25,000; G. M. Riser, president; J. A. Hodges, vice-president; A. H. Smith, cashier.

Ark., Allica.—The Farmers' Bank of Allica is reported incorporated with \$25,000 capital; A. J. Moseley, president; C. W. White, vice-president; P. H. Schwegman, secretary and treasurer.

Ala., Spring Garden.—A bank is reported organized at Spring Garden; capital \$15,000; E. R. Davis of Rock Run Station, president; others interested include N. C. Webb and L. Williams.

Ala., Talladega.—L. G. Jones of Talladega is reported to be promoting the proposed new bank recently mentioned.

Ark., Argenta.—Official: The Merchants and Mechanics' Bank of Argenta, a new concern, is incorporated and chartered; capital \$25,000; begins business August 15; incorporators, John Bowers, Jr., M. Levy, J. C. Dille, D. M. Switzer, H. L. White, H. C. Moore of Argenta, Ark.; H. E. Thom of Little Rock and E. L. Stanley of Levy, Ark.

Ark., Arkadelphia.—The Merchants and Planters' Bank is reported to have begun business on Main St. with \$100,000 capital; R. A. Stuart, president; T. H. Adams, vice-president; J. J. Kross, second vice-president; John H. Stuart, cashier.

Ark., Moro.—A bank with \$10,000 capital is reported organized with A. L. Wilford president, Jay L. Taylor vice-president, and S. O. Branch cashier.

Fla., Bonifay.—Reported that a new bank has been organized with D. L. Green president and W. B. Hammond cashier, and is expected to begin business about November 1.

Fla., Jacksonville.—Charles Seig, president of the New South Home & Farm Co., and others are reported planning to organize a \$2,000,000 trust company in Jacksonville.

Ga., Atlanta.—The Bankers' Investment Co. has applied for charter to deal in stocks, bonds and real estate, besides conducting an insurance agency; capital \$100,000, which may be increased to \$500,000. E. E. Pomeroy, Robert P. Jones and Julian S. Chambers are the incorporators.

Ga., Atlanta.—B. M. Grant says that the Grant Investment Co., which has applied for charter, is not yet organized.

Ga., Bowdon.—Official: Merchants and Planters' Bank of Bowdon, a new concern, is chartered; capital \$50,000, of which \$30,000 is paid in. Will begin business September 15. H. J. Reeves is president; J. B. Fowler, vice-president; Thos. M. McConnell, H. M. Faver, W. T. Beck, J. B. Moore, J. A. Hearn, J. T. Bradley, B. F. Boykin and others are directors.

Ga., Bremen.—The Farmers' Bank is said to be the name of the new bank incorporated with \$25,000 capital by J. R. Adamson and others.

Ga., Buchanan.—The Farmers and Citizens' Bank is reported chartered with \$25,000 capital. J. N. Moore and others are interested.

Ga., Jesup.—Official: The Odum Banking Co., a private institution, is being organized with \$10,000 capital. F. B. Gurr and others are interested.

Ga., Kingston.—A dispatch says a bank has been organized with John D. Walker of Sparta, Ga., interested. R. L. Griffin is president; J. O. Ligon, vice-president, the other directors being B. B. Brandon, R. R. Whitehead, A. O. Reynolds, C. M. Young, Ed. Morton, C. A. Dodd, Wofford Taylor, J. B. Mullinix and W. H. Griffin. Will begin business in the Ligon Bldg. about September 15.

Ga., Lagrange.—Official: The Fire Insurance Agency of Lagrange is organized with R. L. Render president, W. E. Morgan vice-president, A. H. Thompson treasurer, C. D. Strong secretary. Business began August 15.

Ga., Lilburn.—The Bank of Lilburn, capital \$25,000, is reported chartered; incorporators, S. W. Arnold of Winder, J. S. Young and others of Lilburn.

Ga., Linwood.—Official: The Linwood Afro Labor Insurance Co. chartered; expects to begin business about September 1; J. T. Andrews, president; G. R. Smith, vice-president, and Cory Dodd, secretary and treasurer.

Ga., Lincolnton.—Official: The Farmers' State Bank, a new concern, has applied for charter; capital \$25,000. Temporary officers: J. H. Boykin, president; Dr. W. B. Crawford, first vice-president; J. B. Cullars, second vice-president; John D. Walker of Sparta, Ga., financial agent. The incorporators are W. C. Powell, J. M. Price, J. M. Bussey, T. J. Leverett, J. C. Groves, J. A. Hardy, A. S. Willingham, W. Florence, G. A. Norman and others. Business will begin as early as possible.

Ga., Milner.—A dispatch says that the Farmers' Union Bank has been established and will open for business about August 15.

Ga., Nashville.—Reported that a new bank is being organized by Carl Mitchell of Thomasville and C. B. Kittles of Atlanta, Ga.

Ga., Nunez.—The Farmers and Merchants' Bank of Nunez is reported to have made application for a charter; capital \$25,000.

Ga., Norcross.—The Bank of Gwinnett, says a dispatch, has begun business. Leon O. Sikes is cashier. The directors are S. T. McElroy, president; J. W. Haynie, vice-president; S. Cain, Henry Lively, E. C. Settle and J. F. Johnston.

Ga., Savannah.—The Savannah Fire Insurance Co. is reported being organized with \$100,000 capital and \$50,000 surplus to begin business about October 1. Mills B. Lane,

president of the Citizens' and Southern Bank, will, it is reported, be president, and W. F. Train, secretary and treasurer. Adams & Adams are attorneys.

Ga., Sharpsburg.—Official: The Sharpsburg Banking Co., capital \$25,000, is being organized. Officers not yet elected. Business is expected to begin about October 1. J. R. Cole & Co. are interested.

Ga., Tocon.—The Bank of Tocon is reported chartered with \$50,000 capital and will begin business about September 1. N. L. Garland and others are interested.

Ga., Waycross.—The Fidelity Loan & Investment Co., capital \$15,000 to \$50,000, has applied for charter; incorporators, W. D. Quinn, M. L. Bunn and J. W. Bunn.

Ky., Jenkins.—The Jenkins National Bank, capital \$50,000, says a dispatch, has begun business. George T. Watson is president and John E. Buckingham cashier.

La., New Orleans.—The Charles G. Wolfe Insurance Agency, Ltd., publishes charter; capital \$5000. Charles G. Wolfe is president and treasurer, Walter Van Benthuyzen vice-president, Henry I. Burgulieres secretary.

La., New Orleans.—Official: The Gretna Exchange and Savings Bank, 2d and Lavolsier Sts., chartered; capital \$30,000. Directors: Dr. C. F. Gellke, president, Gretna, La.; E. P. Brady, first vice-president, Waggaman, La.; C. M. Babcock, second vice-president, McDonoghville, La.; C. N. Chavigny and Dr. F. Gaudin, New Orleans, La.; John Pfeiffer and David Schwartz, Gretna, La.; Vic. A. Poire, Westwego, La., and Sol. Wexler, New Orleans, La. C. A. Tricke is cashier. Business began July 27.

La., Paradis.—Official: The Bank of Paradis, chartered under State laws with \$10,000 capital, has elected directors thus: Julius F. Funk, president; A. C. DeHass, vice-president, and A. P. Hopkins, cashier; L. M. Pool, J. S. Stusher and H. C. Favrot. Business is expected to begin about September 15.

La., Scott.—The Bank of Scott, capital \$17,000, is reported organized with directors thus: Dr. L. A. Prejan, president; William Butcher, cashier; J. M. Keith, vice-president; Rev. J. M. Detchemendy, Alonzo Lacy, Joseph Sommer and Luc. LeBlanc.

Md., Baltimore.—The St. Casimers Building and Loan Association is incorporated with \$200,000 capital stock; incorporators, Martin J. Antkowiak, John F. Palcher and Steven Antkowiak.

Miss., Verona.—The Verona Bank, capital \$15,000, reported incorporated by W. S. Johnson, R. W. and J. T. Garmon, J. S. Cobb of Verona and Gayle Ford, Dixon Springs, Tenn.

Miss., Pittsboro.—Reported chartered: The First State Bank of Pittsboro; capital \$10,000. N. R. Lamar, M. P. Burke, Pittsboro; Gull Barber, Erwin, Tenn.

Mo., Kansas City.—The State Bank of Kansas City is reported organized thus: David Thornton, president; Arthur C. Cowan, vice-president; Bird H. McGarvey, vice-president and cashier.

Mo., Springfield.—Official: The State Savings Trust Co. incorporated; authorized capital, \$200,000; incorporators, E. N. Ferguson, J. H. Kent, L. S. Meyer, J. L. Hine, J. H. Rountree, M. C. Baker and J. F. Faven. Business is to begin September 1.

Mo., Springfield.—A dispatch says that the officers of the State Trust Co., capital \$200,000, will be E. N. Ferguson, president; J. Holland Keet, vice-president; J. L. Hine, treasurer.

Okla., Checotah.—The Commercial National Bank, capital \$50,000, has been chartered. J. V. Holt is president, W. T. Miller vice-president, A. O. Johnson cashier, and H. L. Wood assistant cashier. It is a conversion of the Commercial Bank.

Okla., Tribbey.—A new bank is reported being formed by E. M. Abernathy, Charles Greenmore, O. B. Arent and O. L. Beckner.

S. C., Camden.—The Loan and Savings Bank, capital \$30,000, is reported to have been granted a commission; incorporators, M. Baruch, W. R. Eve, Jr., T. J. Kirkland, R. B. Elliott, J. H. Burns, L. L. Block, F. M. Wooten of Camden, L. I. Gulon of Lugoff, L. L. Clyburn of Kalb.

S. C., Darlington.—Official: The Carolina Trust Co. chartered; capital \$50,000; Geo. H. Edwards, president; A. Hyman, vice-president, and W. C. Edwards, secretary and treasurer. Business is to begin immediately.

S. C., Kline.—The Bank of Kline is reported to have been granted a commission; capital \$25,000; petitioners, B. M. Jenkins, B. M. Jenkins, Sr., H. B. Cave, W. H. Johnson and S. Sherwood Dunn of Aiken.

S. C., St. Matthews.—A dispatch says that commission is granted to the Farmers' Bank & Trust Co.; capital \$35,000; incorporators,

B. F. Bruce, J. C. Redmond, W. W. McMillan and J. H. Loryea, all of St. Matthews.

Tenn., Chattanooga.—R. T. Wright is quoted denying the report that a new bank with \$100,000 capital is to be organized, saying that the deal is off. It was said that he would be president.

Tenn., Chattanooga.—The Commercial Bank has completed its organization. It is reported, by election of the following officers: Clarence S. Steward of the D. M. Steward Manufacturing Co., president; Dr. J. R. Rathmell, vice-president, and L. G. Browne, formerly of the Hamilton National Bank, cashier; directors, J. O. Martin, C. S. Steward, W. E. Dyer, W. P. Hays, John C. Twinn, L. G. Browne, W. H. Weatherford, P. A. Brawner, J. M. Gager, Dr. J. R. Rathmell, W. R. Long, Howard Mitchell, Jephtha Bright, J. W. Gillespie, Henry Rose and J. H. Brockhaus. Business is expected to begin about October 1.

Tenn., Estill Springs.—The Bank of Estill Springs is reported chartered; capital \$10,000; incorporators and directors, E. C. Byrom, W. K. Dickens, S. R. Tate, T. J. Littleton, Jr., and T. H. Wakefield. Business is to begin at once.

Tenn., Nashville.—Jordan Stokes, Jr., general counsel, confirms report that the Mutual Adjustment Bureau, 1225-27 Stahlman Bldg., Nashville, is a new concern, incorporated with \$20,000 capital, to conduct a general collecting and adjustment business, with authority to act as trustee or assignee. Business will begin August 15. The incorporators, directors and officers are R. T. Hopkins, president; T. Lee Myatt, vice-president; D. W. Binns, secretary; C. W. Harmon, general manager and treasurer; Jordan Stokes, Jr., general counsel, and J. H. Bradford.

Tex., Boyce.—Reported chartered: Boyce State Bank; capital \$10,000; incorporators, J. Baldrige, C. C. Wilson and Fred A. Newton.

Tex., Chelino, P. O. Nacogdoches.—The State Bank of Chelino has, it is reported, made application for a charter; capital \$10,000. Officers: E. A. Blount, president; W. H. Gray, vice-president; Eugene H. Blount, cashier (temporary); directors, E. A. Blount, W. H. Gray, H. V. Fall, H. B. Fall and Dr. Ellis Most.

Tex., Grapeland.—The officers of the State Bank of Grapeland are reported thus: James McLean of Augusta, president; Ex-Gov. T. M. Campbell of Palestine, vice-president; M. R. Brock of Livingston, cashier.

Tex., Mission.—Official: The First National Bank of Mission incorporated by J. C. Hadison, Albert Sammons, C. P. Wright, S. J. Smallwood, Ed Nicholson and Chas. Volz. As soon as building is completed business will begin.

Va., Richmond.—Equitable Loan Society of Richmond incorporated to conduct a real estate and security business; capital \$10,000 to \$300,000; incorporators, T. B. Saunders of Richmond, president; C. D. Griffith, vice-president; B. C. Smith, secretary, both of Norfolk, Va.

W. Va., Mill Creek.—The Bank of Mill Creek, capital \$25,000, is chartered; incorporators, R. Chaffey, J. E. Hanner, W. H. Mason and D. F. Strock of Elkins, W. Va., and Merritt Wilson of Wildell, W. Va.

NEW SECURITIES.

Ala., Boaz.—McCrory & Co. of Atlanta are reported to have purchased at par \$12,500 of 5 per cent. 30-year water-works bonds. R. E. Borough is City Clerk.

Ala., New Decatur.—Official: Bids will be opened August 21 for \$20,000 of 5 per cent. 25-year New Decatur school bonds; denomination \$500; voted July 22. F. A. Bloodworth is City Treasurer.

Ark., Sheridan.—Official: Bids will be received about August 20 for \$12,000 of 5-20 6 per cent. school building bonds; denomination \$250, \$500 and \$1000. Isaac McClellan is secretary of the school district.

Fla., Bartow.—Press dispatches state that an election is to be held October 10 in Polk county to vote on \$500,000 of 5 per cent. 15-35-year road bonds.

Fla., De Funiak Springs.—A dispatch says that the \$70,000 of Walton county good roads bonds for Township 3 were approved at the election August 8.

Fla., Gulfport.—Reported that the Council will take steps to issue and sell \$4000 of internal improvement bonds recently voted.

Fla., Marianna.—W. A. McRae advises that \$100,000 of road bonds will be ready for sale in about 60 days. They are part of a total issue of \$300,000 recently voted.

Fla., Palmetto.—Mayor W. B. Whitehead is quoted saying that Palmetto, which re-

cently voted \$20,000 of bonds for water-works and paving, will vote in September on \$15,000 of bonds to be used in equal amounts for water-works, street paving and sewers.

Fla., Tampa.—Press dispatches state that the Council is considering the question of issuing \$1,500,000 of sewerage, city hall, paving and other improvement bonds.

Ga., Americus.—\$105,000 of paving, water and sewer bonds are reported sold to Hambleton & Co. of Baltimore.

Ga., Bainbridge.—Early in September an election is to be held, it is reported, to vote on \$50,000 of school, \$30,000 of city hall and \$20,000 of pavement bonds.

Ga., Dublin.—Official: Election will be held September 6 on \$350,000 of 5 per cent. thirty-year road and bridge bonds of Laurens county. T. J. Blackshear is secretary.

Ga., Greensboro.—Press dispatches state that an election is to be held next October in Greene county to vote on road and bridge bonds.

Ga., Jesup.—Bids will be received by the Mayor and Aldermen until noon September 1 for \$20,000 of 5 per cent. water-works bonds; denomination \$1000. James Steele is Clerk of the Council.

Ga., Leesburg.—The County Commissioners have been petitioned to call an election in Lee county for courthouse and road bonds.

Ga., Unadilla.—Bids will be received until 6 P. M. September 14 for \$15,500 sewerage and \$12,500 water-works bonds, award to be made at noon September 15. S. L. Speight is clerk and treasurer.

Ga., Oglethorpe.—An official letter confirms report that election to vote on Macon county road bonds has been withdrawn. C. A. Powell is Clerk.

Ga., Savannah.—The City Council has adopted the Mayor's plan for an election December 6 on \$600,000 of 4½ per cent. 30-year bonds for house and storm sewers. There will be 300 bonds of \$500 each and 450 bonds of \$1000 each. Some of the bonds will be retired every year from their beginning.

Ga., Waycross.—Reported that it is contemplated to issue \$175,000 of improvement bonds.

Ky., Georgetown.—The Fiscal Court proposes to issue \$25,000 of 5 per cent. Scott county road and bridge funding bonds; denomination \$500; maturity 1923 to 1927.

Ky., Newport.—The German National Bank of Newport is reported to have purchased \$100,000 of 4 per cent. 30-year street-improvement bonds.

Ky., Williamsburg.—Official: At the regular November election a vote will be taken on \$30,000 of water-works bonds. J. B. White is Mayor.

La., Crowley.—Official: The bid of Cutter, May & Co. of Chicago has been accepted, but deal not yet closed, for the \$75,000 of 5 per cent. 1-31-year bonds of Sixth ward and Crowley drainage district; denomination \$500; dated November 1, 1910. Bonds were voted August 30, 1910. L. A. Williams is secretary-treasurer.

La., Donaldsonville.—\$175,000 of 5 per cent. 40-year New River drainage district bonds are reported voted August 1. C. C. Weber is secretary Board of Commissioners of New River drainage district, Ascension parish.

La., Kentwood.—Mayor W. D. Welsh advises that \$50,000 of 5 per cent. water-works and sewerage-system bonds were voted August 1.

La., New Iberia.—A dispatch says that an issue of bonds for general improvements, including paving, sewers and drainage canal, is contemplated.

La., Red River.—The Interstate Trust & Banking Co., New Orleans, is reported to have purchased \$25,000 of 5 per cent. 20-year building bonds of Red River parish school district No. 1.

La., St. Charles.—Official: The Board of Commissioners of St. Charles Municipal Drainage District has authorized the issuing of \$350,000 5 per cent. 40-year bonds; dated November 1, 1911; denominations \$500 and \$250.

Md., Westernport.—Bids will be received until noon August 22 by John P. Miller, chairman finance committee, for \$2500 of 5 per cent. 5-30-year general improvement bonds; dated May 1, 1911. O. H. Bruce is clerk.

Miss., Bay St. Louis.—It is decided, according to a dispatch, to issue \$50,000 of bonds for protecting the streets from overflow and for purchasing a site for another school.

Miss., Brookhaven.—The Board of Supervisors is reported to have sold at par \$140,000 of 5 per cent. bonds of District No. 1, Lincoln county, as follows: Commercial

Bank, \$50,000, and the Brookhaven Bank & Trust Co., \$90,000.

Miss., Ellisville.—Bids are being received until September 1 for \$10,000 of 6 per cent. 5-20 schoolhouse bonds; denomination \$500. H. P. Gough is City Clerk.

Miss., New Albany.—On September 5 W. S. Parks, Mayor, will sell \$5000 of 5 per cent. 20-year school bonds.

Miss., New Albany.—Official: \$50,000 of road bonds of Second and Third districts of Union county have been sold at a premium.

Miss., Vicksburg.—\$2400 of 5 per cent. Warren county bridge bonds are reported awarded to William Brown at \$2494.

Mo., Bethany.—Reported an election is contemplated for \$20,000 of water bonds.

Mo., Bowling Green.—The County Clerk of Pike County is reported saying that the proposed election for August 1 on \$55,000 of courthouse bonds was not held.

Mo., Cabool.—Official: Coffin & Crawford purchased at \$166 premium \$9000 of 6 per cent. 20-year water-works bonds offered August 7; denomination \$500; dated August 1, 1911. J. W. Patton is Mayor.

Mo., Charleston.—Edward J. Rolwing of Charleston is reported to have purchased the \$240,000 of 6 per cent. 12½-year average drainage bonds of district 23, Mississippi county, at \$9710 premium. An officer is quoted as making the announcement.

Mo., Joplin.—An official letter denies report that water-works bonds are to be sold. Charles A. Robinson is Clerk.

Mo., Joplin.—Reported that a bond issue for \$250,000 to build storm-water sewers is under consideration.

Mo., Kansas City.—Bids will be received until 10 A. M. August 28 for 4½ per cent. 20-year bonds thus: \$60,000 public levee, \$25,000 workhouse and \$50,000 sewer; also for \$25,000 of 4 per cent. tuberculosis hospital bonds; denomination \$1000. D. A. Brown is Mayor and G. Pearson Comptroller.

Mo., Kirksville.—Reported voted: \$17,000 of sewer bonds.

Mo., Kirkwood.—On August 19 an election will be held to vote on \$10,000 of 5 per cent. 10-20-year electric-light improvement bonds; denomination \$500; dated September 1. City Clerk is in charge.

Mo., Rolla.—Reported that an election will be held on \$8000 of light repair bonds.

Mo., Shelbyville.—Reported that the \$84,000 of water and sewer bonds lately voted have been sold to the Fidelity Trust Co., Kansas City, at 58 at 100.36.

Mo., St. Louis.—Reported that in October the city will issue and sell \$1,700,000 of 4 per cent. 20-year water-works renewal bonds to be dated November 1.

N. C., Burlington.—\$35,000 (the balance of an issue of \$60,000) of street-improvement bonds are reported sold to Seasongood & Mayer of Cincinnati at par.

N. C., Concord.—\$105,000 of 5 per cent. 30-year funding bonds are reported sold to Woodin, McNear & Moore of Chicago.

N. C., Jonesboro.—\$10,000 of 5 per cent. 30-year school-building bonds are reported sold to C. H. Coffin of Chicago.

N. C., Kings Mountain Township.—Reported that the Commissioners are offering for sale \$25,000 of 5 per cent. 30-50-year road bonds.

N. C., Morganton.—Official: Bids will be received until 4 P. M. September 18 for \$35,000 of 5 per cent. 20-year water bonds, and will be opened at 1 P. M. September 19. Address Hamilton Erwin, Clerk.

N. C., Nashville.—Bids will be received at any time for \$60,000 of road-improvement bonds; interest not over 6 per cent.; maturity in 30 years. Bunn & Spruill, attorneys, Rocky Mount, N. C., may be addressed.

N. C., Charlotte.—Bids will be received until September 11 for \$100,000 of 4½ per cent. 30-year school-building bonds; denomination \$1000. C. A. Bland is Mayor.

N. C., Charlotte.—Press dispatches state that \$300,000 of 30-year bonds for extension of water-works system to the Catawba River have been purchased at \$1905 premium by the American Trust Co. A. H. Wear is City Clerk and C. A. Bland Mayor.

N. C., Fayetteville.—An election has been called for the second Tuesday in November to vote on \$200,000 of good-roads bonds in Cumberland county.

N. C., Jonesboro.—Official: Bids will be received until September 4 for \$15,000 of 5 per cent. road bonds for Jonesboro township; denomination \$100 and \$500; optional. A. A. F. Seawell, Jonesboro, is in charge.

[For Additional Financial News, See Page 76.]

Established 1835
The Merchants National Bank
 South and Water Sts., BALTIMORE, MD.
 DOUGLAS H. THOMAS, President.
 WM. INGLE, Vice-Pres. and Cashier.
 J. C. WANDS, Asst. Cashier.
 JOHN B. H. DUNN, Asst. Cashier.
 Capital \$1,500,000
 Surplus and Profits \$900,000
 Deposits \$12,000,000
 Accounts of Banks, Bankers, Corporations
 and Individuals solicited. We invite corre-
 spondence.

THE FIRST NATIONAL BANK OF KEY WEST, FLA.

United States Depository and Disbursing
 Agent.

Capital - - - - - \$100,000
 Surplus and Undivided Profits - \$40,000

A general banking business transacted.
 Special attention given to collections.

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Rope Transmission" free upon request.

N. C., Raleigh.—Reported that an election is to be held to vote on street bonds.

N. C., Rutherfordton.—Charles A. Webb & Co. of Asheville are reported to have purchased \$35,000 of 6 per cent. 30-year water-works and electric-light bonds and \$5000 of refunding bonds.

N. C., South Mills.—Notice is given that bids will be received until noon September 4 by W. R. Dozier, secretary to school committee, for \$5000 of 6 per cent. bonds of District No. 19.

N. C., Statesville.—Reported that the \$400,000 of 5 per cent. Iredell county road bonds offered August 7 were sold to Woodin, McNear & Moore of Chicago at a premium of \$15,000. Another report says that the firm was awarded only \$125,000 of the bonds at a premium of approximately \$5000. Of these, \$50,000 are 15-year and \$75,000 are 40-year, all 5s. No more will be offered until money is required. An official letter says the first series, \$125,000, was sold. J. E. Boyd is register of deeds and official clerk to the Board of Commissioners.

N. C., Winston-Salem.—Dispatches say that the \$350,000 bond issue of Winston was carried thus: \$75,000 for streets and sidewalks, \$80,000 for sewer extensions, \$40,000 for water-works extension, \$60,000 for schools and \$95,000 for a site and a new hospital. R. J. Dalton is Mayor.

Okla., Braggs.—Official: The Board of Town Trustees, T. A. Scott, president, will receive bids until 8 P. M. August 21 for the purchase of \$20,000 of 6 per cent. water-works bonds. J. J. Johnson is Town Clerk.

Okla., Chickasha.—Reported voted: \$40,000 of Grady county highway bonds.

Okla., El Reno.—Official: Bids will be received until 2:30 P. M. August 23 by F. T. Stackpole, corporation clerk, for \$35,000 of 6 per cent. 25-year water-works bonds dated August 1. P. P. Duffy is Commissioner of Public Affairs and ex-officio Mayor.

Okla., Holla.—Kennedy & Fleming, engineers and contractors, Oklahoma City, Okla., write that they have purchased \$72,000 of water and sewer bonds.

Okla., Lawton.—Bids will be received until 8 P. M. August 31 (previously August 14) for \$70,000 of 5 per cent. 30-year funding bonds; denomination \$1000.

Okla., Tulsa.—An election will be held August 15 on bonds thus: \$80,000 water-works improvement; \$100,000 sewer; \$50,000 fire station; \$33,000 street improvement; \$7000 library site; \$11,000 pavement. L. J. Martin is Mayor and E. B. Cline, City Auditor.

Okla., Tulsa.—An election will be held September 19. It is announced, on an issue of \$500,000 of good-roads bonds in Tulsa county.

Okla., Tulsa.—Official: Bids will be received by the Board of County Commissioners of Tulsa county until 10 A. M. August 28 for \$500,000 of 5 per cent. 25-year bonds of Road District No. 1, Tulsa county. R. E. Curran is County Clerk.

S. C., Greenville.—A dispatch says that the \$100,000 of Greenville county courthouse bonds were defeated at the election August 8.

S. C., Greenwood.—Reported that the school bond election, which was to have been held July 29, has been postponed until the autumn. John P. Wideman is superintendent of education.

S. C., Greenwood.—A dispatch says that the proposed bond issue to aid the Greenwood to Saluda railroad was defeated in Greenwood, Brooks and Fellowship townships, where a total of \$150,000 was contemplated.

S. C., Hyatt Park, P. O. Columbia.—An election is reported called for \$20,000 of school building bonds for district 13.

S. C., Sumter.—A. V. Snell, secretary of the Chamber of Commerce, writes that the \$150,000 good-roads bond issue was approved at the election in Sumter county.

Tenn., Carthage.—A dispatch says that the proposed issue of \$300,000 of bonds to purchase the tollgates and bridges in Smith county was defeated August 5.

Tenn., Bristol.—Reported that an issue of \$10,000 of water bonds is authorized.

Tenn., Jackson.—Bids will be received, it is reported until noon August 25 for \$135,000 of 4½ per cent. 20-year and \$20,000 of 4½ per cent. 10-year city bonds. F. E. Howard is City Auditor.

Tenn., Jonesboro.—An election will be held September 2. It is reported, on \$25,000 of bonds to aid construction of an interurban railway to Johnson City.

Tenn., Jonesboro.—Reported that the court of this (Washington) county has voted \$90,000 of bonds for the proposed highway from Bristol to Memphis.

Tenn., Kingston.—\$45,000 of 5 per cent. 20-

year coupon funding bonds of Roane county, denomination \$500, are reported sold to John Nuveen & Co. of Chicago at a premium of \$625.

Tex., Archer City.—Reported that \$12,000 of water bonds, 6 per cent. 5-40s, have been sold.

Tex., Austin.—The Attorney-General is reported to have approved bonds thus: \$10,000 Hardin county school 5 per cent.; Nueces county school, \$10,000, 5 per cent.; Bastrop county school, \$11,000, 5 per cent.; Byers school, \$20,000, 5 per cent.; Aransas Pass school, \$20,000, 5 per cent.; Robertson county school, \$1000, 5 per cent.; Willbarger county school, \$800, 5 per cent.; city of Yorktown, \$800, 5 per cent.; Groesbeck school, \$5000, 5 per cent.; Hopkins county school, \$3000, 5 per cent.; Caldwell county road, three issues, aggregating \$115,000, 5 per cent.; Haskell county school, \$1000, 5 per cent.; \$2000 of 5 per cent. Jones county common school district bonds; \$25,000 of district No. 1 and \$40,000 of district No. 3 5½ per cent. 20-40-year Hall county road bonds; \$1150 of 5 per cent. 10-40-year Concho common school district bonds; \$3500 of 5 per cent. 20-40-year Clarksville water-works bonds, and \$25,000 of 5 per cent. 10-40-year Briscoe common school district bonds.

Tex., Beaumont.—Reported voted: \$25,000 of school-building bonds; \$50,000 of sewer bonds; \$25,000 of street bonds; \$15,000 of jail bonds; \$60,000 of park and \$25,000 of abattoir 5 per cent. 20-40-year bonds; total \$200,000. J. G. Sutton is City Secretary.

Tex., Bryan.—Official: An election will be held August 21 to vote on \$8000 water, \$7000 light and \$5000 sewer 5 per cent. 10-40 bonds; denomination \$1000. J. T. Maloney is Mayor.

Tex., Calvert.—The City Council has been petitioned to call election on \$35,000 of water-works and sewer bonds.

Tex., Cold Springs.—\$10,500 of good roads bonds are reported voted in Cold Springs precinct.

Tex., Cuero.—Official: Rudolph Kleberg, Judge, DeWitt county, is receiving bids for \$5000 of 5 per cent. 10-40-year bonds of common school district No. 3, DeWitt county; denomination \$100.

Tex., El Paso.—Reported that 5 per cent. 20-40-year bonds have been voted for the following purposes: School improvements, \$50,000; to fund the unbonded indebtedness of city, \$294,000.

Tex., Fairview, P. O. Colorado.—Reported voted: School bonds.

Tex., Granger.—Mayor L. E. Sheffield writes that \$15,000 of 5 per cent. 20-40-year street improvement bonds have been voted and will be dated June 1, 1911. Issue to be made within 10 days.

Tex., Houston.—Notice is given that bids will be received until noon September 25 for \$500,000 of 4½ per cent. 20-30-year public school building bonds. H. B. Rice is Mayor and Dan C. Smith, Jr., City Secretary.

Tex., Lockhart.—A Lockhart bank, according to press dispatches, purchased \$150,000 of Caldwell county road-improvement bonds.

Tex., Moran.—Reported voted July 29: \$10,000 of schoolhouse bonds.

Tex., Mt. Pleasant.—Reported that Devitt, Tremble & Co., Chicago, have purchased \$16,000 of sewerage bonds at \$16,000 and accrued interest since June 15.

Tex., Paris.—Official: September 5 an election is to be held to vote on \$35,000 of 5 per cent. 10-50-year water-works improvement bonds; denomination \$1000; dated November 10, 1911. Ed H. McCurtain is Mayor.

Tex., Savoy.—Reported sold: \$8900 of school-building bonds.

Tex., Tilden.—A letter says that an election is called for September 2 on \$35,000 of road bonds.

Tex., Tilden.—An election is reported called for August 30 on school bonds.

Tex., Wharton.—Official: J. R. Bowen, Judge of Wharton county, will receive bids at any time for \$350,000 of 5 per cent. 20-40-year bonds of Drainage District No. 1, voted November 10, 1910; dated May 17, 1911. Bonds have been approved by the Attorney-General. P. G. Brooks is County Clerk.

Tex., Wharton.—J. R. Bowen, County Judge, advises bonds are for sale thus: \$350,000 of 5 per cent. 20-40-year drainage improvement bonds; denomination \$1000; terms of maturity may be changed to suit; also \$7700 of common school district 5 per cent. bonds at par and interest; denomination \$100. Address Judge Bowen.

Va., Appalachi.—Reported that bids will be received until August 21 for \$26,000 of water system and \$14,000 of sidewalk, street and sewer-improvement bonds; denomination \$500. M. D. Collier is Town Treasurer.

Va., Charlottesville.—Official: An election will be held September 5 on \$26,000 of 5 per cent. gas improvement bonds; denomination \$2000 each; maturity in from 1 to 13 years, or \$2000 per year. R. W. Holsinger, C. W. Hulfish and H. D. Jarman are in charge. E. G. Haden is Mayor.

Va., Spottsylvania.—An election is reported ordered in Spottsylvania county, on petition from Berkeley district, for \$30,000 of road bonds.

Va., Spottsylvania.—Official: The Farmers and Merchants' State Bank of Fredericksburg, Va., agent, is receiving bids for \$60,000 of 5 per cent. road-improvement bonds of Courtland district, Spottsylvania county; denominations, \$100, \$500 and \$1000; dated July 1, 1911; maturity July 1, 1940.

Va., Wytheville.—Official: Bids will be received until 7 P. M. August 18 by D. B. Hollman, Town Clerk, for \$600 of 6 per cent. school bonds; denomination \$100; ten first bonds payable July 1, 1916, \$1000 annually. G. S. Sexton is Mayor.

W. Va., Fayetteville.—Bids will be received at not less than par until noon September 2 for \$14,700 of 6 per cent. 10-20-year sidewalk bonds. R. H. Dickinson is Mayor and H. W. Claypool Recorder.

W. Va., Gassaway.—Reported that an election will be held on \$15,000 of bridge bonds.

W. Va., Grafton.—The Council has authorized the Mayor to call a special election to ratify \$90,000 of water and power plant bonds.

W. Va., Grafton.—Bids will be received until 8 P. M. August 19 by W. Merle Watkins, secretary Board of Education, for \$19,000 of 4½ per cent. 10-34-year school bonds.

W. Va., Keyser.—Welton and New Creek districts of Mineral county have voted \$22,500 of bonds to aid the Twin Mountain & Potomac Railroad.

W. Va., Moorefield.—C. W. Welton, County Clerk, confirms report that the \$20,000 of Hardy county courthouse bonds were defeated July 29.

W. Va., Northfork.—An ordinance has been passed to issue bonds for water-works. Date of election not decided.

W. Va., Talcott.—\$55,000 of road and bridge bonds are reported voted August 5.

At Ellisville, Miss., bids will be received until September 1 for \$10,000 of 6 per cent.

CHARLES L. HEHL, C. P. A., President
JOHN KÜCHLER, C. P. A., Vice-President

5-20 schoolhouse bonds. Further particulars will be found in the advertising columns.

At El Reno, Okla., bids will be received until 2:30 P. M. August 23 for \$35,000 of 6 per cent. water-works bonds. Further particulars will be found in the advertising columns.

At New Albany, Miss., \$5000 of 5 per cent. 20-year school bonds will be sold September 5. Further particulars will be found in the advertising columns.

At Jesup, Ga., bids will be received until noon September 1 for \$20,000 of 5 per cent. water-works bonds. Further particulars will be found in the advertising columns.

At Morganton, N. C., bids will be received until 4 P. M. September 18 for \$35,000 of 5 per cent. 20-year water bonds. Further particulars will be found in the advertising columns.

At Braggs, Okla., bids will be received until 8 P. M. August 21 for \$20,000 of 6 per cent. water-works bonds. Further particulars will be found in the advertising columns.

At Tulsa, Okla., bids will be received for \$500,000 of 5 per cent. 25-year bonds of road district No. 1, Tulsa county. Further particulars will be found in the advertising columns.

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Sealed bids will be received by the Board of Public Works of the town of Honea Path, S. C., until noon September 5, 1911, and then opened, for furnishing machinery, boilers, pumps, engines, etc., and materials for the electric-light plant, and for cast-iron water-pipe, valves, lead, etc., and tank for the water plant, also for deep well. Detailed bill of material and machinery with proposal blanks will be furnished on application to Thos. W. Cothran, Consulting Engineer, Greenwood, S. C. The Board reserves the right to reject any or all bids. Bids will be accompanied by a certified check for 2 per cent. of the amount bid, guaranteeing to enter into contract and make delivery.

JOHN F. MONROE, Chairman;
L. A. BROCK,
F. H. HUDGINS,
Board of Public Works.
Honea Path, S. C., August 10, 1911.

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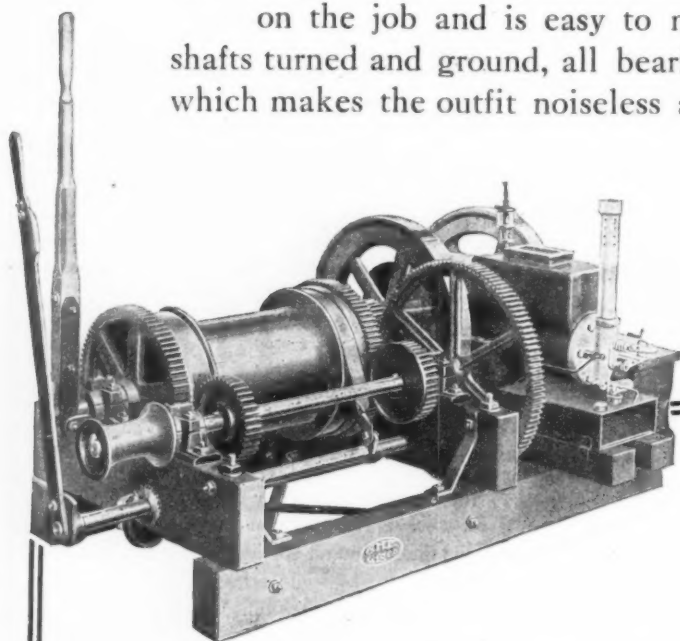
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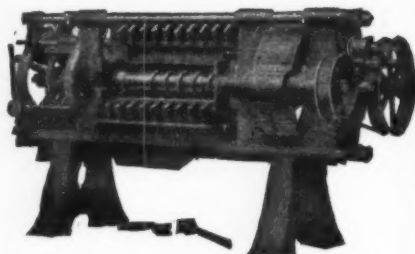
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325 MINERAL STREET
MILWAUKEE, WISC.

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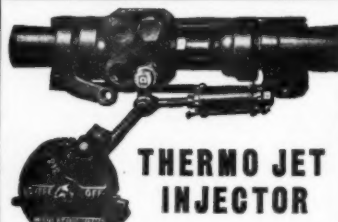
are not installing the ANDERSON OIL EXPELLER without good reason. It makes better oil and better cake at less cost than other machinery. Works whole seed or meats only. Let us explain.

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The function of this heating system is to ensure uniform car temperatures in mild or severe weather, by automatically maintaining any desired temperature of the radiating pipes between 140 and 280 degrees Fahrenheit. It is the only system which does.

**THE SAFETY CAR HEATING
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It's expensive and unnecessary

The D. B. M. Wireless
Pipe Locator

will find the exact location of metal pipes under ground, no matter how deeply they're buried, nor what they're covered with.

Write for 10 days' free trial offer.

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Protect your HOMES, PUBLIC and PRIVATE INSTITUTIONS by using "Eureka" Hose. We are the original and largest manufacturers of RUBBER-LINED COTTON HOSE. The only four-ply circular and solidly woven Hose made.

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RAILROAD STAND PIPES.
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Well Drilling Machines



Over 70 sizes and styles, for drilling either deep or shallow wells in any kind of soil on wheels or on engines or horse powers. Strong, simple, durable. Any mechanic can operate them. Send for catalog.

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Wire Stapling Machinery

For Fruit Packages, Baskets, Crates, Barrels, Butter Dishes, Boxes, etc. Currugated Joint Fastener Driving Machinery.

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Office and Bank Supplies.

Write for prices.

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Personally Conducted.

BALTIMORE TO BOSTON, WHITE MOUNTAINS, Etc. Friday, July 21st, fourteen-day trip. \$65.00, including all necessary expenses.
BALTIMORE TO BOSTON, NARRAGANSETT PIER, Etc. Tuesday, August 22d, ten-day trip. \$45.00, including all necessary expenses.
Send for Itinerary.

W. P. TURNER, P. T. M. BALTIMORE, MD.

Baltimore Steam Packet Co.

OLD BAY LINE,

FOR OLD POINT COMFORT, NORFOLK, AND PORTSMOUTH, CONNECTING WITH ALL RAIL LINES SOUTH AND WEST.

THROUGH TICKETS TO ALL PORTS.

Freight received and forwarded every week-day, and Bills of Lading issued to all points South and West and for Richmond, Norfolk, Portsmouth, Old Point Comfort and Mathews and Gloucester Landings. Splendid Steamers Florida, Virginia or Alabama—fast south of New York, equipped with United Wireless Telegraphy. Leave Company's Pier, Light St., foot of Barre St., daily, including Sunday, at 4.30 P. M.

Tickets to all points and staterooms reserved at Ticket Office, 107 E. Baltimore St.; S. A. L. Ry. Ticket Office, Baltimore and Calvert Sts.; Albaugh's, 2 E. Fayette St., and at 500 Light St.

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SOUTHERN CAN CO.

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FIVE THOUSAND DOLLARS REWARD

for evidence that will convict the parties who have been selling steel throughout the country, using the name of the undersigned without our authority.

Their Methods Vary, but One Is

to solicit orders for small quantities or samples, then dictate to some assistant of the purchaser an order on the purchaser's forms for a large quantity, and by various methods to induce the purchaser to sign without careful examination of the order.

In the interest of mutual protection, we ask full particulars of those who may have been victimized.

SWEDISH IRON AND STEEL CORPORATION

12 Platt Street, New York, N. Y.

428 Race Street, New Orleans, La.

Classified Opportunities

MEN WANTED

CHEMIST to take charge of testing laboratory; must be able to test cement, steel, rock and fertilizer. C. W. Requaugh Company, 510 Trust Bldg., Charlotte, N. C.

HOISTING ENGINE MAN to take charge of 60-horse-power engine; must have good record and give good recommendation. C. W. Requaugh Company, 510 Trust Bldg., Charlotte, N. C.

WANTED—Responsible and experienced hardwood lumber man to take active part and some interest in hardwood lumber business. My holdings consist of 46,000 acres virgin hardwood and about 18,000 in pine in fee simple; also band mill, standard-gauge railroads, etc.; party must have at least \$10,000 cash; will bear the closest investigation; mill superintendent preferred; also other good men, bookkeeper, etc. Address No. 833, care Manufacturers Record.

WANTED—Agents to sell automobile specialty which every auto owner needs; quick seller; big profits; particulars free. D. Wilkison, Falco, Ala.

WANTED—Traveling or local men; all sections of the country; profitable side line; commission or salary; good men average \$100 weekly. For particulars address The Sun Chemical Company, Richmond, Va.

SALESMEN.—To sell high-grade driers and paint oil on commission basis. State territory. Address Box 135, Collinwood, Ohio.

WANTED—Competent biller and detailer for cash and door factory. State age, references and salary expected. Perkins Manufacturing Co., Augusta, Ga.

LEATHER BELTING MANUFACTURERS of established reputation about to widen territory want salesmen of record and experience in Central or Southern States; one whose trade is with jobbers preferred; good opening for the man who can deliver. Address "Belting," care Manufacturers Record.

SALESMAN WANTED.—The manufacturer of a well-known line of concrete mixers wants a hustling man to handle their product in the South on a commission basis. To a man with experience in this line this is a fine opportunity. Address No. 823, care Manufacturers Record.

WANTED—Real salesmen acquainted with building and contract work to handle concrete mixers. The American is a batch mixer giving a perfect mix either wet or dry. It is sold under a liberal commission arrangement without requiring any financial investment by the agent. A good seller in other sections and should prove attractive in the South with pushing. Address Cargill Mfg. Co., 557 Buttrick Ave., Columbus, O.

AGENTS WANTED to handle established steam specialty which is known all over the country; can be handled with non-conflicting specialties; will give exclusive agency only for amount of territory actually covered by agent or his salesmen in the following States: Virginia, North Carolina, South Carolina, Oklahoma, Wyoming, Georgia, Arizona, New Mexico, Montana, Idaho, Florida, Arkansas, North Dakota, South Dakota. Address Postoffice Box 1754, Pittsburg, Pa.

WANTED—High-grade experienced electrical supply salesman; give references, stating age, experience and salary expected. Address Jobber, P. O. Box 201, New Orleans, La.

AGENTS WANTED to sell lubricating oils, belts, hose, paint, varnish, to contractors, auto owners, mills, factories, etc. Exclusive territory to right party. Oil experience unnecessary. Manufacturers' Oil & Grease Co., Cleveland, Ohio.

A RICHMOND CORPORATION extensively marketing a production in use for seven years without competition, and a great seller, wants managers who can handle subagents; small investment necessary for exclusive rights to counties or whole States of Georgia, Tennessee, Virginia, Carolinas, Florida, Alabama, Louisiana, Texas. Proposition good for \$500 to \$10,000 per year. Southern Spray Co., Richmond, Virginia.

SALES AGENTS to sell feed-water heaters, evaporators, condensers and other power-plant equipment; guaranteed territory; commission. Address Fisher, 90 West St., New York City.

WANTED—Superintendent and manager by a new company just organizing in the South to manufacture church furniture; a competent man familiar with this line of business and able to invest some capital, having ability to take entire charge of the business. The company has ample capital, with buildings and machinery ready for operation. Address Southern Church Furniture Co., care of Manufacturers Record, Baltimore, Md.

AGENCIES WANTED

WANTED—Agency for novelties in hardware special machinery, tools, wrenches, etc. Success Novelty Co., Inc., Richmond, Va.

SITUATIONS WANTED

WANTED.—Young man wants position in any line concrete work; eight years of practical experience; excellent references; will go anywhere. Address Box 245, Pensacola, Fla.

Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 24 lines. Allow seven words per line. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year, as follows: 100 lines, 18c. per line; 300 lines 16c. per line; 500 lines or more, 15c. per line.

WANTED—Connection with responsible corporation (mining or manufacturing preferred) as secretary, treasurer, office manager or auditor by gentleman with extensive experience and highest references; open for engagement September 1. Address No. 832, care Manufacturers Record.

SINGLE MAN, 35 years old, good business experience, desires an active executive position with manufacturing or brokerage concern; can invest \$500 with connection. Address No. 831, care Manufacturers Record.

EDUCATIONAL

RENSSELAER POLYTECHNIC INSTITUTE, TROY, N. Y.—Courses in Civil, Mechanical and Electrical Engineering, and General Science, leading to the degrees of Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), and Bachelor of Science (B.S.). Special courses in engineering and science. Splendidly equipped new engineering laboratories. Send for catalogues to Registrar.

BANKS

COMMERCIAL STATE BANK, Birmingham, Ala. State depository. Prompt attention to Alabama collections.

THE PALMETTO NATIONAL BANK, Columbia, S. C. capital \$250,000, solicits accounts of banks, firms, corporations and individuals, either commercial or savings accounts.

BUSINESS OPPORTUNITIES

MANUFACTURERS producing articles of merit suitable for the mail-order trade will please send information and catalogues to Box 44, Jacksonville, Fla.

WANTED—Manufacturers fully equipped to do expert model-making in sheet-metal articles. R. E. Kelly, Coconut Grove, Fla.

LOT SALES.—Owners of land located close to thriving cities, here is a chance to have your lots taken to the mint and coined into money. Our Red Tag Lot Sales are record breakers, the plan is entirely new, and a bigger money getter than the old-time auction sale. Write for terms and full particulars. Address Tom Magruder, Gen. Manager, 534 Jefferson Ave., Evansville, Ind.

INVESTMENTS—FARMING—HOUSTON—YOUR OWN WELFARE.—If you are interested in either of these, kindly send ten cents for a copy of the Practical Farmer. It will astonish you. It will give you pointers on the best, safest and easiest investment in the United States today. H. S. Taylor, Scanlan Bldg., Houston, Texas.

DAVIS, SWANN & GORDON, San Antonio, Texas. General Brokers, will entertain offer for exclusive agency of reliable manufacturers. We are located in the fastest growing district of the Southwest; will have large quantities of cotton-tile clippings for sale, also brewers' rice, compress patches, bagging and ties. References.

TO MANUFACTURERS.—Want to hear from reliable, high-grade manufacturers to undertake promotion of my new fountain blacking brush for stoves, shoes, harness, etc. Box 265, Barry, Illinois.

TURPENTINE.—We hold thirty years' lease under official sanction on three million acres turpentine pine in Mexico; solid body; annual rental \$7500. Will take stock in full consideration in company composed of reliable naval stores operators, organized to take over the lease and exploit property, or act as holding company for purpose of subletting. Full details to earnest inquirers with financial standing. The C. E. Way Land Co., Suite 514 Frost Building, San Antonio, Texas.

FACTORIES LOCATED, factory buildings in the principal cities to rent, factories, sawmills, flour mills, warehouses, real and personal property sold or exchanged. Timber, grazing and farm lands sold or exchanged. Properties cared for, rents collected. Office space, desk rooms and Chicago addresses arranged for. High-class manufacturing stocks and bonds for sale and exchange. Offer what you wish to sell, inquire for what you wish to buy. Negotiations confidential. Business promptly executed. Correspondence invited. Kreis & Company, 167 W. Washington street, Chicago, Ill.

FOR SALE—New City Hotel at Winfield, La.; 3-story; brick; 60 rooms; doing big business; will net \$550 to \$650 per month; \$20,000 down; balance, \$30,000, 10 years' time, 6 per cent. interest. Write H. E. Lancaster, Yoakum, Texas.

MAPS AND BLUE PRINTS

MAPS OF TEXAS COUNTIES.—We make blueprint maps of nearly all Texas counties and several Louisiana parishes. Write for prices on those desired. Singleton Bryan & Co., Beaumont, Texas.

TYPEWRITERS

TYPEWRITERS RENTED.—\$1, \$2 and \$3 per month. Rental applied on purchase. All makes for sale. Special this week, No. 6 Remington, \$25. R. J. Nicholson, Glenn Bldg., Baltimore, Md.

If you are interested in purchasing a high-grade typewriter and do not care to invest \$100 asked by the manufacturer, we would like you to investigate our remanufactured machines. Enterprise Exchange, Inc., 609 E. Baltimore St., Baltimore, Maryland.

FACTORY SITES

FOR SALE—2400 feet water front just beyond city limits on Elizabeth River; suitable for docks and manufacturing. Price \$75,000 if sold within sixty days. Jos. A. Wallace & Co., 211 Berkeley Ave., Norfolk, Va.

FREE SITES and other liberal assistance; cheap fuel; natural gas, oil, coal and abundant water; six railroads. Address Chamber of Commerce, Wichita Falls, Texas.

INDUSTRIES WANTED

MISCELLANEOUS

CLEVELAND, TENN. WANTS YOU.—The best town in the Southeast, with a hydroelectric development of 32,000 initial horsepower for manufacturing purposes, final development 82,000 horsepower. Free manufacturing sites; exemption from city and county taxes; ample railroad facilities; spring water pumped to all parts of the city; cheap raw materials; 188 miles of pike road in county; fine farming and trucking section; best of public utilities; cheap white labor; cheap power; ideal location for cotton mill, furniture factory and brick-manufacturing plant; good climate; most rapidly developing city in the Southeast. Write Commercial Club, Cleveland, Tennessee.

WANTED—Factories to locate in the heart of the great Southwestern coal district. An abundance of coal and water and good railroad facilities. In addition to this we have about four million feet of hardwood lumber. We also have deposits of shale and clay in abundance, suitable for fine brick and pottery, and a small test kiln ready for operation. None too small or too large. Can interest all with inducements we have to offer. Write to Hartsborne Industrial Club, Hartsborne, Oklahoma.

SUFFOLK.—The best manufacturing and distributing point in Virginia; six railroads and water transportation; plenty of labor; cheap fuel; electric power; seventy manufacturing plants in successful operation; opportunity for furniture and woodworking plants and any wholesale, jobbing or manufacturing business; center of tidewater; richest farming section to be found; healthy; excellent schools and churches; filtered water, gas and sewer. Write Board of Trade, Suffolk, Va.

KISSIMMEE, FLORIDA, has developed rapidly as a business center. Population doubled in eighteen months. Invites factories and wants especially—

A Machine Shop,
A Furniture Factory,
A Barrel Factory,
A Broom Factory,
A Cigar Factory.
Board of Trade, Kissimmee, Florida.

"BUSIEST AND BEST BUILT CITY IN TEXAS".—Wichita Falls possesses unsurpassed natural resources and advantages. Offers exceptional opportunities for investors; free sites for manufacturing establishments; cheap fuel; natural gas, oil, coal, electricity and abundant water from the largest body of water in Texas; six railroads; raw material at hand; latest approved public utilities; creosoted wood block pavement throughout business section; over fifty miles concrete sidewalks. Most rapidly developing city in Southwest. Handsome booklet and detailed information upon request. Address Chamber of Commerce, Wichita Falls, Texas.

VICTORIA, TEXAS, head of navigation of Guadalupe River; center of cotton, corn, truck and citrus fruit-growing district of South Texas; country rapidly developing; opportunities for many industries. If interested in the coastal section of Texas, write for booklet "D" to the Secretary of the Progressive League.

ASHEVILLE, N. C.—Delightful all-year-round climate; center of hardwood forests of Southeast; abundant hydro-electric power; 31,000 population; 40 miles paved streets; cheap, reliable labor; wants spoke and handle factory; furniture factory; wagon factory. Also wants man with some capital to invest in established manufacturing enterprise with services. Write Board of Trade, Asheville, N. C.

MILLEDGEVILLE, GA., with its inexhaustible supply of hardwood and kaolin, central location, low freight rates, excellent transportation facilities and ideal climate, offers unusual opportunities for manufacturing industries of all kinds. Before locating elsewhere write Young Men's Business League.

FACTORY WANTED.—We represent large property owner that will give good bonus for factory employing 50 men or more. North Texas Realty Co., Ft. Worth, Tex.

INDUSTRIAL PLANTS FOR SALE

BRICK PLANT

BRICK PLANT FOR SALE.—Modern, up-to-date brick plant in Georgia, now in operation, making 25,000 common building brick per day; only one in this locality; complete set of grinding machinery, 75 H. P. engine, steam drier, plenty of clay, labor, wood, etc.; best of reasons for selling; good proposition for a live man who can give it his time. Address No. 806, care Manufacturers Record.

PHOSPHATE PLANTS

VALUABLE PHOSPHATE TRACT.—Wanted—To sell or lease on royalty, valuable tract phosphate land, containing 200 acres; located on railroad in heart of Tennessee phosphate field; estimated to contain over 300,000 tons high-grade rock; fully equipped plant ready for operation; capacity, 150 tons per day; owners not phosphate men and active in other business. Best opportunity in the phosphate field for right man with small capital. Address No. 828, care Manufacturers Record.

FOR SALE—VALUABLE PHOSPHATE PROPERTY, located in Florida, consisting of 1000 acres in fee and 650 acres leased on royalty; 400,000 to 500,000 tons accessible mining high-grade phosphate; three standard plants in operation. Good reasons for selling. For price and particulars address Dixie Land & Investment Co., 16 Stetson Bldg., Birmingham, Ala.

ELECTRIC LIGHT AND POWER PLANT

ELECTRIC LIGHT AND POWER PLANT for sale, consisting of one 11x10 Ideal engine, with D. C. 40 K. W. Westinghouse generator; one 11x12 Ideal engine, with D. C. 50 K. W. Westinghouse generator; battery of two 30 H. P. return tubular boilers, pumps, heaters, etc.; all in first-class condition; can be seen at the Title Guarantee Building, Birmingham, Ala., where it will be in daily use until October 1 next. An opportunity for securing a first-class plant cheap. Address Title Guarantee Loan & Trust Co., Birmingham, Ala.

MACHINE AND REPAIR SHOP

MACHINE AND REPAIR SHOP FOR SALE.—I have for sale a small machine shop and foundry, well located at a junction of two roads, well equipped for doing general repair work. Satisfactory reasons given for selling. Address J. A. Brown, Chadbourne, N. C.

TIMBER ESTIMATOR

TIMBER ESTIMATES—LOW COST.—Any timber tract in South Atlantic or mountain States will be estimated at lowest cost. Method used is new and shows details that can be checked. Accuracy guaranteed. Send for sample report explaining method. A preliminary estimate may save you useless expense. C. A. Divine, Franklin, N. C.

MINERAL AND TIMBER LANDS WATER POWERS AND MISCELLANEOUS PROPERTIES

\$50,000,000 IN THREE YEARS.—Invest in Washington real estate. As the nation grows so must its capital city develop. The increased value of Washington real estate in the past three years was approximately \$50,000,000. Did a portion of this represent your profits? We are now placing on the market one of the best-located subdivisions in the choice northwest section, fronting one mile on Sixteenth street, and overlooking the National Rock Creek Park. The future of this section will make this the best investment in the suburbs of the national capital. For plat and full information apply to Robert E. Heater, 411-412-413 Colorado Building, Washington, D. C.

FACTORY SITES, Business Property, Residences and Farms. If interested in the metropolis of the Southwest or its territory, write for free land list and booklet on Houston, Texas (where 17 railroads meet the sea), or make your wants known. Bank references. Address Central Land Co., 303 Theater Bldg., Houston, Texas.

WRITE HELLBERG & BLAIR, 418 Roberts-Banner Bldg., El Paso, Texas, for information about business opportunities of all kinds and investments in town lots in the new town of Columbus, situated in the wonderful Lower Mimbres Valley, New Mexico, 74 miles west of El Paso, on the El Paso & Southwestern R. R. Pure soft shallow water for irrigation. Free Government land. Patented land at from \$15 to \$25 per acre.

Classified Opportunities

FOR SALE OR EXCHANGE—380 acres beautiful money-making Birmingham, Ala., suburban property, on two railroads, with station, 20 minutes' ride of the center. Also valuable improved 1100-acre Alabama farm near large city. Both high-grade valuable, enhancing properties. The suburban tract is suitable for lot subdivision, townsite, manufacturing, etc. Owner desires to concentrate on one larger property, but would exchange one or both for clear income property or large high-grade well-improved farm. B. F. Eborn, Birmingham, Ala.

SHIP CHANNEL FRONTAGE—1800 acres fine black prairie land between Houston and the bay, fronting 1½ miles on Houston Ship Channel; small amount of beautiful timber along water frontage; high banks; Southern Pacific Railroad and Houston-Bay Shore Railroad through south edge of property; railroad station on land; high and well drained; beautiful factory or residence townsite; strictly first class in every particular. Address Dr. C. S. Preston, 1007 Scanlan Bldg., Houston, Texas.

BEAUTIFUL LAKE BUTLER LOTS are offered for a limited time on special terms. Until September 1, 1911, we offer a 10-acre lot on Lake Butler Heights (Tarpon Springs section) for \$25 as first payment, and if purchaser dies before purchase payments are completed, will give to your heirs or assigns a warranty deed for lot absolutely free. If you want a bargain and a home in the most desirable part of Florida, write now for particulars and reservation. Tampa & Tarpon Springs Land Co., Tampa, Florida.

MINERAL LAND FOR SALE

FOR SALE—EIGHT HUNDRED ACRES OF IRON-ORE LAND.—We have for sale eight hundred acres of iron-ore land on the Chattanooga Southern Railroad, forty-five miles south of Chattanooga, Tenn. This is a splendid body of iron ore, all in one body, and about one mile from the railroad. The veins of ore that have been opened show a thickness of 23 to 35 inches. The soft ore analyses 58 per cent metallic iron; the hard ore 60 per cent. Plenty of timber and water on the land for all mining purposes. For further particulars call on or address R. C. Sauls & Sons, Room No. 720 James Building, Chattanooga, Tenn.

WE ARE IN CONTROL, fee delivery (titles perfect), of large boundaries in Tennessee coal, iron and mineral belt. Surveys 70,000 to 90,000 acres, convenient to transportation, having on it and near all the raw material needed for manufacturing purposes, good bituminous, domestic and coke-making coal; veins show large average tonnage per acre and easy mining cut, and abundance of high-grade iron ores. These valuable holdings can be delivered at comparatively low figures, one-half of what it is in reality now worth, to genuine buyers who can show ratings or bank references to warrant the ability to promptly take over these lands. None but principals need reply. Open bar-gain to direct buyers. Address J. C. Lindley, Greensboro, N. C.

TIMBER LAND FOR SALE

SOUTHERN TIMBER LANDS.—Large tracts of pine, cypress and hardwood all over the South. James & Colby, Galveston, Texas.

HARDWOOD.—15,000 acres virgin Alabama hardwood; will cut 5000 feet to acre; the best tract of timber in the South and a great bargain; price \$12.50 per acre. Foster Cohen, 131 Cooper St., Atlanta, Ga.

TIMBER—TIMBER.—Several million acres throughout North America. We offer special opportunities to manufacturers and investors, in tracts of any size, whether for immediate or future use. Timber is going fast. Let us tell you about it in time. Parker Land & Timber Agency, Charlotte, N. C.

WE OWN, for sale, eighteen hundred acres of virgin timber land in West Carroll Parish, La.; will cut 6000 feet of hardwood per acre, 800 feet W. O. forked leaf and cow oak per acre; 16 to 48 inches; two to three miles of railroad; fine farming land; just as represented; will sell in 80-acre tracts and up. Price, \$25 per acre. C. H. Neely, Oak Grove, La.

700,000,000 FEET FINEST TIMBER in available tracts in North Carolina, Georgia, Alabama, Tennessee, including yellow poplar; white, red, black, water and chestnut oak; hickory, hemlock, long and short leaf and spruce pine, etc.; half million cords railroad ties and telegraph poles, wood pulp, chestnut, tan bark, etc. Address No. 834, care Manufacturers Record.

FOR SALE—33,000 acres of timber and land in Ark. at \$10 per acre. Will cut 5000 feet per acre of hardwood.

10,000 acres on Ouachita and Saline Rivers in Ark. Will cut 10,000 feet per acre; 45 per cent white oak. Price \$15 per acre.

80,000 acres in Ark.; 65 per cent oak. Terms on this to suit. Price \$12.50 per acre.

13,000 acres in Northern La.; 6000 feet per acre; 50 per cent white oak. Price \$15 per acre. Write me for full particulars. J. B. Hamner, No. 80 Madison Ave., Memphis, Tenn.

CUT-OVER TIMBER LANDS

4000 ACRES level rich cut-over timber land, 26 per cent. 14,750 acres cut-over timber hill land, \$2.85 acre. Robert T. Sessions, Winthrop, Ark.

CUT-OVER TIMBER TRACTS.

50,000 acres cut-over pine lands, Miss.... \$6.50
30,000 acres cut-over pine lands, La..... 6.00
15,000 acres cut-over pine lands, Tex..... 5.00
18,000 acres cut-over hardwoods, La..... 4.50
Marsh Lands for Reclamation.
60,000 acres in a body, Gulf Coast of La. 3.00
Timber Lands.
20,000 acres L. L. Y. pine, Fla., cut 2500 ft. 7.00
15,000 acres L. L. Y. pine, Fla., cut 7000 ft. 21.00
30,000 acres hardwood, cut 10,000 ft. (60% red gum)..... 10.00
Finest red gum proposition South.
Wm. R. Taylor, 508 Perrin Bldg., New Orleans, La.

TIMBER FOR SALE

FOR SALE—THE FINEST LONG-LEAF PINE TIMBER IN GEORGIA.—Very large and long; nothing under 14" diameter at stump will be sold; tract contains 2254 acres and will cut 19,000,000 feet; only 3 miles from railroad; easily logged; high, dry and healthy; low freight rate into Savannah. If you want large and long heart timbers, this is the place to find them. Will bear closest investigation. We own this timber and will sell at reasonable price. Address No. 835, care Manufacturers Record.

2000-ACRE BARGAIN—HARDWOOD TIMBER.—Rich bottom land, East Texas; fine proposition for a sawmill; two railroads; switch on land; near town; need money quick; sacrifice; no trade. J. L. Farley, owner, DeSoto, Mo.

MINERAL AND TIMBER LANDS

FOR SALE—400-acre tract magnetic iron ore land on line N. & W. and Virginian Rys.; wide vein of ore will yield 60 per cent metallic iron. 5000 acres timber on transportation in West Virginia. 4000 acres Pocahontas coal land. J. C. Sullivan, Beury, Fayette Co., W. Va.

FARM AND TIMBER LANDS

FOR SALE—Large and small plantations in the rich Red River Valley, cheap and on easy terms; also large tract of hardwood. Apply to E. J. Iles, Alexandria, Louisiana.

1000 ACRES in the heart of Virginia for sale at \$5 per acre. This body of land has every natural advantage. Soil rich and well watered. One-third improved; balance in good timber. Only 8 miles from flourishing town and railroad center.

400 acres in Buckingham county, within 2 miles of railroad and large trading point. While this tract has no buildings, it is very rich, practically level and free from stones. One-fourth improved land; balance in good timber. Would make one of the best farms in the State. \$6 acre.

Buckingham Investment Co., Dillwyn, Va.

I HAVE BARGAINS IN TIMBER TRACTS. large colonization propositions, cut-over lands and reclamation tracts in any size wanted up to 150,000 acres from \$2.50 per acre up.

Wm. R. Taylor, Land and Timber Investments, 508 Perrin Building, New Orleans, La. Established 1898. Sales over \$6,000,000.

GEORGIA FARM LAND FOR SALE.—1 own in fee simple, titles perfect, 9781 acres of fertile farm land, lying along two trunk-line railroads for seven miles and within 38 miles of Savannah, Georgia. On this land is a good stand of yellow pine, estimated to cut 20,000,000 feet, with thousands of cords of firewood, posts, ties and other small timber. Also good 8-room house, a barn that cannot be duplicated for \$1600, store building and other houses, with railroad station, stores and church on the property. Low transportation rates by reason of water competitive rates prevailing at Savannah, giving prompt shipping facilities to Northern markets for vegetables and fruit, with excellent market at home the year round. Healthy location, good water, and nothing better in Georgia as a colonization proposition. Will not divide tract, but with financially able parties will trade outright, or put in property and take interest in development of same. For price and terms and further particulars address W. W. Robertson, Norfolk, Va.

COTTON LAND WANTED

WANTED—TO BUY 3000 ACRES OF COTTON LANDS.—I have clients who are in the market for from 1000 to 3000 acres of cotton lands. The total acreage in one tract is preferred. Must be south of the Ohio and east of the Mississippi Rivers. Write, giving location, price, terms and full details and particulars. Only high-grade cotton land at a bargain wanted. Prefer to deal only with principals. Address H. C. Brown, care of 821 James Bldg., Chattanooga, Tenn.

COLONIZATION LANDS

BEST COLONIZATION PROPOSITION IN THE SOUTH.—50,000 acres cut-over pine lands for sale cheap, on reasonable terms; good soil, high, well drained and healthful; in one of the most progressive sections in Mississippi; two trunk-line railroads and near rapidly-growing towns; must be sold in its entirety. Address Owner, Box 4, Jackson, Miss.

FOR SALE—16,000 acres, Gonzales county; 90 per cent. tillable; highly improved; 20 artesian wells; 50 houses; 3200 acres cultivated; ideal colonization proposition; \$30 acre; one-third cash; balance easy, 6 per cent. Box 368, Coleman, Texas.

TRACT FOR COLONIZATION.—12,000 acres in Lavaca and Jackson counties, Texas; 95 per cent. tillable; black waxy and black sandy land. On both sides of Lavaca River. Numerous settlements and good wells of water on tract; all subdivided and ready for colonizing. Will give good terms on this tract. Emil Locke, No. 712-13 Gibbs Bldg., San Antonio, Tex.

HOME AND FARM DEVELOPMENT LANDS.—27,000 acres of land in North Carolina, well adapted to colonization purposes or to development as a farming proposition. Lies on both sides of the S. A. L. Ry. Contains large area of famous Hoffman sandy loam type of soil, which readily responds to intensive methods of cultivation and returns enormous yields of cotton, corn and truck. 98 per cent. can be brought into cultivation. Fine water and healthful climate. Address W. P. McRae, Rockingham, N. C., or P. C. Whitlock, Charlotte, N. C.

20,000 ACRES of well-drained alluvial land in Point Coupee parish, La., one-half of which is good hardwood timber land; two railroads cross the property; this is a very attractive colonization proposition; \$15 per acre. 60,000 acres of land in parishes of Iberville and St. Martin; \$5 per acre if taken at once; an exceptional bargain. Write for particulars. E. L. Page, 618 Whitlock-Central Bldg., New Orleans, La.

IN SOUTHEAST GEORGIA.—Colony farming tract of 28,000 acres of good farming lands within 27 miles of Jacksonville, Florida, on railroad; will readily sell in small farms from \$20 to \$30 per acre. Price \$4 per acre. Write Wm. Nussbaum, Jacksonville, Florida.

FARMS AND TRUCK LANDS

IN THE HEART OF THE GREATEST DEVELOPMENTS.—1200 acres rich dark sandy loam, very deep, clay subsoil, in Dimmit county, in the "proven artesian belt" of Southwest Texas. Big flowing wells on adjoining properties. This land is near the famous Cross S Ranch; adjoining lands selling \$40 to \$60 per acre. For quick sale, \$27.50 on terms. Engle Bros., 412 Gibbs Bldg., San Antonio, Tex.

FLORIDA FARMS ARE FORTUNES.—Our soil similar to fertile sections Iowa, Missouri; easy-payment plan. Write for booklet. Milton Land & Investment Co., Marianna, Fla.

TEXAS LANDS.—Large tracts of the celebrated Gulf Coast fruit and truck land, where crops grow and flowers bloom every month in the year. James & Colby, Galveston, Texas.

FOR SALE—235½ acres prairie land, located Santa Fe Railroad, and on public road (shelved) only 13 miles from Beaumont and one-quarter mile from Fannett; suitable for general farming or for subdividing into smaller tracts. Title perfect. Price \$27.50 per acre. Also other lands suitable for subdivision. Texas Realty Co., Beaumont, Texas.

SOUTH TEXAS ORANGE, FIG, POTATO, CORN AND COTTON LAND.—We offer 254 acres of the best improved potato, corn and cotton land in South Texas, near Houston, for \$30 per acre. Will sell for \$300 per acre inside of five years. This land will pay a big dividend on that price now.

1700 acres, all prairie, orange, fig and garden land, perfect drainage, between Houston and Galveston. Will sell as a whole or in 10-acre tracts, or as much as you can handle, on very easy terms. Send for our literature and let us know what size tract of land you wish to buy. L. Bryan & Co., Houston, Tex.

PECOS PALISADES LANDS.—Ranch and irrigated lands in lower Pecos Valley. S. L. Estes, 405 North Texas Building, Dallas, Texas.

GREATER HOUSTON (Population over 100,000).—Just twelve miles out on Main street (Houston's \$200,000,000 thoroughfare) is located North Houston Gardens; 10-acre tracts only \$500; terms, \$25 cash, balance \$15 per month, no interest; five-acre tracts, \$400; terms \$15 cash, balance \$7.50 per month, no interest; 142-acre improved farm 50 miles from Houston, price \$25 per acre. H. S. Taylor, Scanlan Bldg., Houston, Texas, Member Houston Real Estate Exchange and the Texas Realty Association.

THE FRIO VALLEY WINTER GARDENS. La Salle county, Southwest Texas, a colony of 100,000 acres level rich black sandy loam in famous artesian belt; grow oranges, figs, Bermuda onions. We are opening Fowlerton, a new town on new railroad in heart of the colony. Guaranteed improvements on townsite. A 10-acre farm and free residence lot on terms of \$15 cash; balance \$10 monthly. Write for booklet A, prices, plats, etc. Fowler Brothers Land Co., Frost Building, San Antonio, Texas.

VIRGINIA AND MARYLAND high-class water-front property on the famous Eastern Shore of Maryland, also on the Chesapeake Bay in Virginia, and farms in all the Piedmont section; many bearing commercial apple orchards in the mountains of Virginia. Send for Catalogue S. Southern Farm Agency, 721 Main St., Lynchburg, Va.

FOR SALE—9695 acres of land, Culberson county, Texas, all tillable except 400 acres; fenced; watered; two houses; three miles station on Texas & Pacific Railway; good ranch for colonization proposition; at \$5 per acre. C. Collins, 1513 Main St., Dallas, Tex.

FIFTEEN-HUNDRED-ACRE RANCH, three miles of Godley, Johnson county, Tex.; three hundred acres in cultivation; balance pasture; \$5000 worth of improvements, including three good barns; all fenced and cross-fenced; partly hog-fenced; lays on good pike road, and plenty of running water. Real bargain at \$30 per acre; one-half cash; balance on easy terms. Other black land farms in large and small tracts. Chas. G. Cloud, 1101 Main St., Dallas, Tex.

YOU SHOULD JOIN US in owning a Texas Bermuda onion farm. We are developing 500 acres of the best onion land in Texas. 3 acres of our land made \$1800 profit. Co-operation with us means wealth. You cannot lose. All land irrigated from artesian wells. No water troubles. One hundred acres in each farm. 100 shares per farm. \$150 per share, monthly payments of \$5 per acre. Let us send you particulars. Zavala Onion Farms Company, Gibbs Building, San Antonio, Texas.

JAS. GOODE REAL ESTATE CO., ranch and irrigated lands. Office, Orient Hotel, Pecos, Tex.

IRRIGATED LANDS.—Parties in the North, East and Middle West interested in improved and unimproved irrigated lands and ranch property in the great Pecos section, communicate with us. Pawkett & Davis, Pecos, Tex.

MR. INVESTOR, TAKE NOTICE! 13,000 acres of valley land; five miles frontage on bold, beautiful flowing river; all fine agricultural land; in strong flowing artesian belt, not far from railroad south of San Antonio. The finest big body of cheap land in Texas. As fine as silk. Price \$13 per acre; easy terms, with release clauses for subdividing. Wire or write us at once. Kullenberg Realty Company, 302 Gibbs Bldg., San Antonio, Texas.

WHY PALMETTO LEADS.—The 800,000 boxes of fruits and early vegetables attests the superiority of soil, climate and irrigation necessary to produce such crops. The ease with which such crops are handled by rail and water make it an ideal place for fruit and vegetable growing. The Manatee River, Terra Cina and Tampa bays furnish ideal salt-water fishing, boating and bathing. For further information address The Manatee River Board of Trade, Palmetto, Florida.

PARTIES in the North, East and Middle West interested in Southeast Texas farm and truck lands and acreage property communicate with C. B. Shepard, Box 425, Beaumont, Tex.

IRRIGATED FARM.—250 acres of rich sandy loam, level, and to be irrigated from the famous Elephant Butte Dam, now in course of construction. This land can now be bought for \$35 an acre. Write us for full description. Loomis Bros., El Paso, Texas, Mexican Timber Lands.

2500 ACRES FINE FERTILE LAND in Sumter county, Georgia, ¼ mile of railroad station; 1500 acres open; soil red and gray pebbly of best quality; 5-room house, large barn, cribs; 26 tenant-houses; two public roads through property; running water; land adapted to growing the best crops of cotton, corn, hay, oats, potatoes, canteloupes, pecans, etc. If you want one of the best farms in "Georgia," write or call on the undersigned. Price \$35 per acre; one-third cash. Cheap at \$50 per acre. P. B. Willford, Americus, Ga.

TWO FARMS in fertile Georgia; prices reasonable; containing 589 and 405 acres; good cotton and corn land. \$8000 stock of general merchandise cheap. Write B. H. Warren, Louisville, Jefferson Co., Ga.

FLORIDA LANDS AT WHOLESALE.—19,672 acres, Lee county, \$6; 67,000 acres, St. Lucie county, \$5; 111,360 acres, extreme southern Florida, \$3.25. Terms reasonable. Tanner Land Co., Cedar Rapids, Iowa.

EIGHT HUNDRED ACRES IN PECANS. Furnish the money to work them into an orchard and I will give you a one-half interest. Worked now, and in ten years 'twill be worth \$1000 per acre. Write me. J. S. Dixon, Powhatan, La.

70,000 ACRES, twenty miles north of the city of Santa Rosalia, Chihuahua, Mexico, on the line of the Mexican National Railway; living stream of water known as Concho River, and the whole tract can be irrigated from this source, and water good water to be had from six to ten feet in abundance. Price \$1.25 per acre. Henry Cass & Fry, 30 City Natl. Bank Bldg., El Paso, Tex.

MACHINERY AND SUPPLIES

WANTED.—Every consumer in the Southwest to know that the Texas Rolling Mill Company of Fort Worth, Texas, manufactures track spikes, track bolts, machine bolts and nuts; also standard sizes of bar iron. One hundred tons always in stock. Prompt shipments our specialty. Satisfaction guaranteed.

FOR SALE—\$1835 worth of coffin and casket hardware machinery, practically new; will take \$785 cash for it; a bargain for someone; consists of dies, stamping and wire-bending machine, molds, buffing and polishing machines, etc. Particulars, write E. E. Stallings, Enfield, N. C.

Classified Opportunities

[CONTINUED FROM PAGES 80 AND 81.]

MACHINERY AND SUPPLIES

WE CAN SAVE YOU MONEY.—Plate glass, store fronts, metal trimmings, metal ceilings, everything complete for your stores. For particulars write Store Front Co., Box 305, Savannah, Ga.

FINANCIAL

SAVANNAH, GA.—Real estate loans paying 6 per cent. to 7 per cent. to the investor; absolutely safe. Beautiful sites for winter homes at Vernon View, the salt-water place near Savannah on the Grand Prize Course; ideal winter climate. G. A. Mercer, Law and Real Estate, Savannah, Ga. References: Any bank or trust company in Savannah.

PROFESSIONAL

ARE YOU POSTED on twentieth-century patent searching? The engineer service separate from law practice? Read No. 2-B, Inventor's Pocket Library, free for stamp. Washington Searching Co., Fleming Bldg., Washington, D. C.

PATENT ATTORNEYS

EUGENE C. BROWN, ENGINEER and Patent Lawyer, Suite 40 Victor Bldg., Washington, D. C., Member Bar U. S. Supreme Court. Patents and Trademarks; Patent Suits for Infringement. Mr. Brown is especially qualified to prosecute cases in Patent Office and patent litigation from both Engineering and Legal standpoints, having been Examiner in U. S. Patent Office for nine years. Send sketch for advice.

PATENTS OF QUALITY.—The valuable and salable kind. Send for free advisory information. Reference to clients throughout the U. S. Geo. R. Hamlin, Patent Lawyer, Inventive Age Bldg., Washington, D. C.

PATENTS Secured or Fee Returned. Send sketch for free report as to patentability. Guide book and what to invent, with valuable list of inventions wanted, sent free; \$1,000,000 offered for one invention; \$15,000 for others. Patents secured by us advertised free in World's Progress; sample free. Victor J. Evans & Co., Washington, D. C.

IDEAS WANTED.—Manufacturers are writing for patents procured through me. Send for free 72-page guide and "Stepping Stones" (containing over 200 inventions wanted). Personal services. Clients' patents sold free. Trade-marks registered. R. B. Owen, Dept. 12, Washington, D. C.

PATENT YOUR IDEAS.—\$100,000 offered for one invention, \$500 for another; book, "How to Obtain a Patent" and "What to Invent," sent free; send rough sketch for free report as to patentability; patent obtained or fee returned. We advertise your patent for sale at our expense. Chandlee & Chandlee, patent attorneys, 978 F street, Washington, D. C.

PATENT WHAT YOU INVENT.—Your ideas may bring you a fortune. Our free books tell what to invent and how to obtain a patent. Send sketch of invention for free opinion as to patentability. Patents obtained or fee returned. Patents advertised for sale free. H. Ellis Chandlee & Co., successors to Woodward & Chandlee, Suite 75 Borneo Bldg., Washington, D. C.

PATENTS FOR SALE

WE HAVE recently secured the following patents. Address all communications to Sales Dept., Victor J. Evans & Co., Washington, D. C.: Jesse M. Evans, automatic funnel; Walter Baker, rivet and bar feeding mechanism for riveting machine; G. W. Denison, chopper; Harry N. DeLaney, ink stick; Frank Davis, hose coupling; Emile Brazil, motorcycle attachment; E. W. Bishop, electrical indicator; M. A. Beard, saw set; Homer R. Hannah, oil burner; W. J. Bell, railroad tie; Jarvis C. Dusenberry, chuck jaw; James F. Corenfo, bevel and angle tool; C. H. Kelley, log-loading tongs; Lars Kviendegard, safety lamp extinguisher; Frank A. Froelich, reversing gear mechanism; August H. Davids, disinfecting apparatus; C. S. Homsher, foldable ironing board; Clarence J. Crum, composition; A. E. Lawrence, storage batteries; Adolph Siegel, collar; Leonard R. Steel, milk pail; R. W. Tauson, mailbag catcher and deliverer; M. H. Looney, rail joint; Messrs. Zook & Kraus, churn; Edward Schindler, closet seat.

PROPOSALS

PUBLIC BUILDINGS.

CONSTRUCTION BONDS

MISCELLANEOUS.

GOVERNMENT PROPOSALS

PROPOSALS FOR MECHANICAL-BOND Steel Bars and Lumber. Sealed proposals will be received at the office of the General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10.30 A. M. September 1, 1911, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and general information relating to this Circular (No. 644) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney-Central Building, New Orleans, La.; and 1086 North Point Street, San Francisco, Cal.; also from the U. S. Engineer Offices in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio; Cincinnati, Ohio; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala.; and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill.; and Chamber of Commerce and Board of Trade, Tacoma, Wash. F. C. BOGGS, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., August 2, 1911. Sealed proposals will be received at this office until 3 o'clock P. M. on the 15th day of September, 1911, and then opened, for the construction of the United States Postoffice at Washington, D. C., in accordance with drawings and specifications, copies of which may be had at this office or at the office of the architects, Messrs. D. H. Burnham & Co., Railway Exchange Building, Chicago, Ill., at the discretion of the Supervising Architect. Application must be accompanied by a certified check for \$250, drawn to the order of the Treasurer of the United States, the proceeds of which will be held in this office until the return of the drawings and specifications. JAMES KNOX TAYLOR, Supervising Architect.

WAR DEPARTMENT, U. S. Engineer Office, Montgomery, Ala., July 24, 1911. Sealed proposals for filling at Fort Pickens, Florida, will be received at this office until one o'clock P. M. August 24, 1911, and then publicly opened. Information on application. G. D. FITCH, Lt.-Col., Engrs.

U. S. ENGINEER OFFICE, CHARLESTON, S. C. August 5, 1911. Sealed proposals for constructing and delivering, complete, the two (2) steel hull, stern wheel, combination bucket dredges and snagboats, Pedee and Waterco, will be received at this office until noon September 5, 1911, and then publicly opened. Information upon application. G. P. HOWELL, Major, Engineers.

POSTOFFICE DEPARTMENT, Washington, July 25, 1911. Sealed proposals will be received at the office of the Purchasing Agent for this Department until 2 o'clock P. M. September 14, 1911, for furnishing 11,000,000 paper registered package jackets to the postal service during the period November 1, 1911, to June 30, 1915. Blanks for proposals, with specifications and instructions to bidders, will be furnished upon application to the Purchasing Agent. FRANK H. HITCHCOCK, Postmaster-General.

NEW BOND OFFERINGS

Sale of Water-Works Bonds

The Board of Town Trustees, Braggs, Okla., will receive sealed bids up to 8 P. M. August 21, 1911, for the purchase of \$20,000 of 6 per cent. water-works bonds. Certified check for \$200, payable to T. A. Scott, President Board of Town Trustees, to accompany proposal. For information address J. J. Johnson, Town Clerk, Braggs, Okla.

\$5,000 5% School Bonds For Sale

September 5, 1911, at my office, in the City of New Albany, Miss., \$5,000 20-year 5 per cent. School Bonds. Interest payable annually.

W. S. PARKS, Mayor.

Sale of Bonds

Notice is hereby given that sealed bids will be received by J. W. Johnson, Marion, S. C., Attorney for the Board of Trustees of High School District No. 1 of Marion County, State of South Carolina, and for the Board of Trustees of School District No. 36 of Marion County, State of South Carolina, up to twelve o'clock noon on Thursday, August 31, for an issue of coupon bonds for said High School District in the sum of twenty thousand (\$20,000) dollars, payable forty years after date, interest at five per cent. per annum from date of issue, payable annually; also for an issue of coupon bonds of said School District No. 36, in the sum of thirty thousand (\$30,000) dollars, payable twenty years after date, interest from date of issue at the rate of five per cent. per annum, payable annually. Any questions arising as to the validity of said bond issue will be submitted to the Supreme Court at the expense of the Board of Trustees. Purchaser must refund accrued interest on bonds to date of payment for same. The trustees reserve the right to reject any and all bids. The town of Marion, with population of thirty-nine hundred according to census 1910. Property according to tax returns of nearly \$900,000 is included in above districts.

Notice for Bids and Disposition of Bonds in Accordance With Section 792, General Statutes of Florida.

The Board of County Commissioners of Duval County, Florida, will receive bids for the purchase of two hundred and fifty thousand dollars (\$250,000) of Duval County, Florida, five (5) per cent. bonds at the clerk's office, in the courthouse at Jacksonville, Fla., at 10 o'clock on Monday, the 25th day of August, A. D. 1911.

The principal of said bonds shall be due and payable on the first day of December, A. D. 1939.

Interest on said bonds shall be due and payable on the first day of June and December of each year.

Any and all bids may be rejected if the County Commissioners shall deem it for the interest of the county to do so.

Address all bids to County Commissioners of Duval County, Florida, care P. D. Cassidy, clerk, Jacksonville, Fla.

P. D. CASSIDY, Clerk of the Board of County Commissioners in and for Duval County, Florida.

\$45,000 Gold Bonds

CITY OF BRADENTOWN, FLORIDA, IMPROVEMENT BONDS.

Sealed bids will be received by the City Council of the City of Bradenton, Florida, at the office of the City Clerk, until noon of August 24, A. D. 1911, for \$45,000 improvement bonds.

These bonds will be of the denomination of \$500 each, payable with the interest thereon in gold coin at the office of the Treasurer of the City of Bradenton, Florida, thirty years after the date thereof, with the option or privilege reserved by the City of Bradenton of redeeming said bonds after twenty years from date.

Said bonds are to be dated July 1, A. D. 1911, and to bear interest at the rate of five (5) per cent. per annum, payable semi-annually on the first day of January and July.

No bid will be entertained for less than par and accrued interest and unless accompanied by a certified check for 2 per cent. of the amount of the bonds bid for.

This issue of bonds validated, ratified and confirmed by Special Act of the Florida Legislature.

The City Council reserves the right to reject any or all bids.

E. KRETSCHMAR, Clerk City of Bradenton, Florida.

Water-Works Extension Bonds

El Reno, Okla.

Sealed bids will be received at the office of the Corporation Clerk, El Reno, Oklahoma, up to 2.30 P. M. August 23, 1911, on the Water-Works Extension Bonds of 1911 of said city, amounting to \$35,000; six per cent. twenty-five year, non-optional bonds, interest payable semi-annually in August and February, interest beginning August 1, 1911. Provisions have been made to create the necessary sinking funds for said bonds.

All bids must be accompanied by a certified check for \$1000 as an evidence of good faith on the part of the successful bidder. No bids for less than par will be considered, and the Board of Commissioners reserves the right to reject any and all bids.

P. P. DUFFY, Commissioner of Public Affairs and Ex-Officio Mayor. Attest: F. T. STACKPOLE, Corporation Clerk.

Macon Waterworks Bonds \$700,000.00

Sealed bids to be received by A. R. Tinsley, Treasurer, City of Macon, Ga., up to noon of September 4, 1911, to be publicly opened by the Mayor and Council in open Council on the 5th day of September, 1911.

Certified check for \$1000 to accompany each bid. City reserves the right to reject any and all bids.

Bonds to be delivered to purchaser at the office of the City Treasurer, Macon, Ga., on Saturday, September 30, 1911.

Note.—This sale is for \$700,000, numbered from 1 to 700, inclusive, the remaining \$200,000 to be sold at a later date.

For full information apply to A. R. TINSLEY, Treasurer, Macon, Ga.

Water Bonds For Sale

Sealed bids will be received at the office of the undersigned until 4 o'clock P. M. September 18, 1911, for the purchase of \$35,000 water bonds of the town of Morganton, North Carolina. Said bonds to be coupon bonds, dated October 1, 1911, payable twenty years after date. Interest, five per cent., payable semi-annually.

Bids to be accompanied by certified check of \$1000, to be returned if bid is not accepted, and to be applied on price if accepted. Bids to be filed with the Mayor of the Town of Morganton and will be opened by the Town Council at the Mayor's office in said town on the 19th of September, 1911, at 1 o'clock.

The right to reject any and all bids is reserved.

HAMILTON ERWIN, Clerk, Morganton, North Carolina.

Sale of Municipal Bonds

The town of Mt. Olive, N. C., offers for sale twelve thousand dollars six per cent. interest-bearing coupon water-works bonds. Bonds to be of the denomination of \$500 each, interest payable annually, dated October 1, 1911, and maturing October 1, 1931.

The undersigned will receive sealed bids for the purchase of said bonds up to 5 o'clock P. M. September 5, 1911. Bids to be opened by the Board of Town Commissioners on September 5, 1911, at 8 o'clock P. M. No bid for less than par for all or a part of the issue will be considered. A certified check for 5 per cent. of the amount bid must accompany each bid. The Board of Town Commissioners reserves the right to reject any or all bids.

The undersigned town officials will be pleased to furnish any information covering the matter to prospective bidders.

C. W. OLIVER, Chairman Water Committee. G. F. HERRING, Mayor and Clerk.

\$60,000 5% Courthouse Bonds

Claude, Texas, August 1, 1911.

The following bonds, issued by Armstrong County, Texas, dated May 15, 1911, for the purpose of erecting a county courthouse, are offered for sale to the highest secure bidder:

The total issue of said bonds is \$60,000, due forty years from date, with option of redemption after five years from their date, at the denomination of \$500 each, numbered from 1 to 120 inclusive, interest 5 per cent. per annum; interest payable annually on the 10th of April of each year, payable at the Hanover National Bank in New York City, or at the office of the State Treasurer at Austin, Texas, or at the office of the County Treasurer, Claude, Texas. Sealed bids for these bonds will be received until Monday, September 11, 1911, at 1.30 P. M. Deposit of \$3000 will be required to be made, payable to J. C. Caldwell, County Treasurer of Armstrong County, Texas (certified check or better), and sent to E. C. Cayton, County Clerk of Armstrong County, Texas, at Claude, Texas, with sealed bids, to be marked "Bids on Bonds." Bids to be unconditional. The Commissioners' Court reserves the right to reject any and all bids.

These bonds were issued under Art. 87 of the Revised Statutes of Texas and amendments thereto upon a vote of the property taxpayers of said county, the vote being 225 for the bonds and 130 against.

Armstrong county has never made default in the payment of any of its obligations promptly upon maturity, has no other bonded or registered indebtedness, and no borrowed money, has an actual property valuation of over \$10,000,000, with an assessed valuation of \$5,150,000 for the year 1911, and has no issue of bonds contested. There is no pending or threatened litigation touching or in any manner affecting the validity of this issue of bonds, or any of the officers of said county. The proceeds from said bonds will be used for the purpose of building a courthouse for said county and no other purpose. Population 1910, 2852. Tax rate for county purposes 1910, 14c. on the \$100 valuation. No floating debt. Election held May 6, 1911. Bonds approved by the Attorney-General of Texas. Delivered within 10 days after sale.

I hereby certify that the above statement is true to the best of my knowledge and belief.

J. S. STALLINGS, County Judge, Armstrong County, Texas.

Road Bonds

Tulsa, Oklahoma, August 12, 1911.

Bids will be received by Board of County Commissioners of Tulsa County, Okla., for proposed issue of \$500,000 bonds of proposed Road District No. One, Tulsa County, Okla. Bonds to run 25 years and bear 5 per cent. interest.

Bids must be accompanied by a certified check for \$5000 on a local bank. Bids to be in hands of County Clerk by 10 A. M. August 28, 1911. Purchaser to furnish all legal data.

Board reserves the right to reject any and all bids. Checks returned unsuccessful bidders.

By order Board of County Commissioners. R. E. CURRAN, County Clerk.

Notice—Sale of City Bonds

The Mayor and Board of Aldermen of the Town of Jesup, Georgia, will, until 12 M. September 1, 1911, receive sealed bids for an issue of twenty thousand dollars five per cent. water-works bonds, to be of the denomination of one thousand dollars each, dated December 1, 1911; the first bond to be come due on December 1, 1917, payable in gold, and one to mature every year thereafter until all are paid; interest to be paid semi-annually from December 1, 1911, on the first day of June and the first day of December each year at the office of the Treasurer of the Town of Jesup. The purchase price for the bonds to be paid December 1, 1911. The Mayor and Board of Aldermen reserve the right to reject any and all bids. For further information address James Steele, Clerk of Council, Jesup, Ga.

PROPOSALS

PUBLIC BUILDINGS.

CONSTRUCTION BONDS

MISCELLANEOUS.

NEW BOND OFFERINGS

\$10,000 Schoolhouse Bonds

CITY OF ELLISVILLE, MISSISSIPPI.
The City of Ellisville, Mississippi, has for sale \$10,000 of Schoolhouse Bonds of the denomination of \$500 each, bearing 6 per cent. interest, payable annually at the office of the City Depository, all due July 1, 1931, or at any time after July 1, 1931. All bids must be accompanied by certified check for \$500. Assessment valuation of city property, real and personal, \$650,876. Real value, estimated, \$1,500,000, real and personal.
Send bids to City Clerk not later than September 1.

H. P. GOUGH,
City Clerk.

BRIDGES

Bridge Notice

Wentworth, N. C.
Notice is hereby given that the Board of County Commissioners of Rockingham County, N. C., will receive, at a meeting September 5, 1931, bids, estimates and specifications for the purpose of repairing the approach to the bridge across Dan River, and also to construct bridges across the following streams:

Big Beaver Island Creek at Madison, Haw River, Little Troublesome Creek, Hogan's Creek at Dalton's, Lick Fork Creeks at Ruffin.

All persons will submit sealed bids, and the right to reject all bids is hereby expressly reserved.

J. P. McMICHAEL,
Clerk Board Commissioners.

Steel Bridge

NOTICE TO CONTRACTORS.

Notice is hereby given that the contract to build a steel bridge across Fair River, on Rockport road, near Vanilla, Miss., will be let at the courthouse door in the town of Monticello, Miss., on Monday, September 4, 1931, at 2 o'clock P. M., to the lowest responsible bidder, according to plans and specifications on file with the clerk (no extra plans to distribute). Certified check for ten per cent. of amount of bid required to be placed with the clerk by each before letting. The Board reserves the right to reject any and all bids.

This August 7, 1931.

W. H. SPEIGHTS, Clerk.

Steel Bridge

OFFICE OF PUBLIC WORKS, MADISON PARISH, LA.

Tululab, La., 1st August, 1931.
Sealed proposals, to be directed to A. L. Slack, Secretary of said Board, to be opened on Monday, 28th August, 1931, will be received at this office for the erection of a steel bridge across Joe's Bayou, at the head of Joe Bayou Lake, with the right reserved to accept or reject any bid. Located 3 1/2 miles south of Waverly, on V. S. & P. Ry.
Said bridge to have a roadway of 12 feet and some 130 feet in length, including a span of 75 feet. Plans can be submitted by each bidder, one of which will be selected, on which the bids will be received.
By direction of the Police Jury.

A. L. SLACK,
Secretary.

Notice to Bridge Builders

Sealed bids will be received by the Board of Public Works of the City of Tampa, Florida, at their office, Room 28 First National Bank Building, up to 2 o'clock P. M. Wednesday, September 6, 1931, for the construction of a reinforced concrete or concrete-steel bridge, with bascule lift, over the Hillsborough River at Lafayette street. A certified check of \$10,000 must accompany each bid as a guarantee that the successful bidder will enter into contract according to their bid and specifications within ten days after award of same.

Plans and specifications to accompany each bidder's proposal.
A profile of the river at the bridge site and information can be obtained from the engineer of the Board.
The city reserves the right to reject any or all bids.

D. B. McKAY, Chairman.

Attest:
ALLEN THOMAS, Clerk.

SEWERS

Sewers and Waterworks

CHANGE OF DATE.

Sealed proposals will be received by the Mayor and Council of Thomaston, Georgia, until 2 P. M. Wednesday, August 23, for furnishing material, machinery and labor for constructing water-works and sewer system in and for the town of Thomaston, Ga. Plans may be seen at the office of the City Clerk or Engineers, and specifications may be obtained from either.

Certified check for 5 per cent. required.
The right is reserved to reject any or all bids.

CLAUDE WORRILL, Mayor.
R. E. RUSHIN, Clerk.
THE J. B. McCRARY CO., Engineers,
1211-15 Empire Building,
Atlanta, Georgia.

Proposals for Sewerage System

South Jacksonville, Fla., July 27, 1931.
Bids will be received by the Board of Bond Trustees of the City of South Jacksonville, Florida, until 4 o'clock P. M. August 24, 1931, for the construction of a sanitary sewerage system.

Extent of proposed work is approximately 3 1/2 miles of pipe, 8 to 18 inches; manholes, flush tanks, etc. Specifications may be obtained from and plans and profiles seen at the office of the Consulting Engineer.

Each bid must be accompanied by a certified check for 5 per cent. of the total of bid. The right is reserved to reject any and all bids.

W. W. SWAIM, Chairman;
A. C. MACEY, Secretary;
Board of Bond Trustees,
South Jacksonville, Fla.
WILLIAM W. LYON,
Consulting Engineer,
305 Duval Bldg., Phone 849,
Jacksonville, Fla.

PAVING

Street Paving

The City of Alken, S. C., will receive sealed bids until 4 o'clock P. M. August 31, 1931, for the construction of about 7300 square yards of street paving, with 4-inch concrete base, 2-inch sand, paving to be of vitrified brick. Sample of brick to be submitted with bid.

Bids will also be considered on asphalt paving.
Plans and specifications can be seen at the office of the City Clerk.

The city reserves the right to accept or reject any and all bids.

J. L. McCARTER,
City Clerk.

Proposals for Paving, Etc.

Sealed proposals will be received at the office of the undersigned, in the City of Johnson City, Tenn., until 7 P. M. September 7, 1931, for constructing bridges, sewers, storm-water drains, concrete curb and gutter and street paving with brick, asphalt, bitulithic, wood block, granite or concrete, for improvement Districts No. 7 and No. 8, according to plans and specifications in the office of the City Engineer.

Approximate Quantities.
5000 cubic yards Excavation.
23,000 square yards Street Paving.
12,000 linear feet Curb and Gutter.
1600 linear feet 6" Sewer Connections.
600 linear feet 15" T. C. Drains.
11 Catch Basins.
16 cubic yards Reinforced Concrete to cover drain 8 feet wide.

Each bid must be accompanied by a certified check equal to 10 per cent. of the amount of the bid as a guarantee of the good faith of the bidder.

Bids are asked for payable either in cash or 5 1/2 per cent. bonds, at the option of the city.

The right is reserved to reject any or all bids.

Bids will be opened at a regular meeting of the City Council Thursday, September 7, 1931, at 7 P. M.

P. F. McDONALD,
City Commissioner.

WM. R. POWDER,
Recorder,
Johnson City, Tennessee.

Grading and Macadamizing

NOTICE TO CONTRACTORS.

Tazewell, Va., August 9, 1931.
Sealed bids will be received at the office of the Clerk of Tazewell County, at Tazewell, Va., up to noon Thursday, August 31, 1931, for the grading and macadamizing of the following roads in the three several magisterial districts of Tazewell county, namely: Clear Fork District, about eight miles; Jeffersonville District, about twelve miles, and in Maiden Spring District, about fifteen miles. The macadam on all of said roads to be of an average width of 12 feet.

Plans and specifications for all of the several sections above named can be seen at the office of the Clerk of Tazewell County, at Tazewell, Va., and at the office of the State Highway Commissioner in the city of Richmond, Va., and also at the office of R. B. Williamson in Graham, Va.

Bids will be received on any one or on all of the above-named sections.

A certified check must accompany each bid, payable to the Treasurer of Tazewell County, for a sum equal to two per cent. of the amount bid, which will be required as evidence of good faith on the part of the bidder.

The right is reserved to reject any or all bids. All bids must be filed with the clerk of the Board of Supervisors at Tazewell, Va., by noon of the 31st day of August, 1931, to be held by the said clerk until such time as he may receive notice that the money is ready from the sale of bonds to John Naveen & Co. The successful bidder will be required to give bond in the amount of thirty-three and one-third (33 1/3) per cent. of face of contract.

BOARD OF SUPERVISORS
OF TAZEWELL COUNTY.
By F. Thompson, Chairman.

Street Paving

The City of San Angelo, Texas, will receive sealed bids until 8:30 o'clock P. M. August 21, 1931, for the construction of about 22,000 square yards of street paving. Bids to be received on the following six classes of paving, namely: Vitrified Brick, Macadam, Cressed Wood Blocks, Natural Rock Asphalt, Hassam Compressed Concrete and Asphaltic Concrete.

Certified check for a thousand dollars to accompany each bid. Right reserved to reject any and all bids. For specifications see or write J. J. Goodfellow, City Engineer, San Angelo, Texas.

All bids to be filed with the undersigned.
A. C. McDONALD,
City Secretary,
San Angelo, Texas, July 31, 1931.

Macadam Road

OFFICE OF STATE HIGHWAY COMMISSION.

Richmond, Virginia, July 27, 1931.

Bids will be received by the undersigned and the Board of Supervisors of Wise County at the Clerk's office at Wise, Va., up to 11 A. M. Wednesday, August 23, 1931, for the construction of about two hundred and seventy-two thousand (272,000) square yards of macadam to be laid on roadbed already graded, in groups as follows:

Wise Group.....49,869 square yards
Norton Group.....33,441 square yards
Coburn Group.....69,523 square yards
Big Stone Gap Group.....88,590 square yards
Appalachia Group.....30,508 square yards

Quarry rights will be furnished to the contractor free of cost at the most convenient points obtainable. Bids on each separate group must be accompanied with a certified check, payable to the Chairman of the Board of Supervisors of Wise County, in the sum of five hundred (\$500) dollars; but a certified check in the sum of fifteen hundred (\$1500) dollars will entitle the bidder to bid on three (3) or more groups; this as a guaranty of the acceptance and performance of the contract by the party to whom it may be awarded, and his failure to execute said contract will forfeit said check.

The right is reserved to reject any and all bids.

Specifications and "Instructions to Bidders" may be had on application to the County Engineer at Norton, Virginia.

P. ST. J. WILSON,
State Highway Commissioner.

Notice of Letting Contract to Construct Roads

Aberdeen, Miss.

Notice is hereby given that the Road Commissioners of Supervisor's District Number Four of Monroe County, Mississippi, will receive sealed bids up to two o'clock P. M. of Tuesday, September 5, 1931, at the office of the Chancery Clerk of Monroe County, Mississippi, for the construction of grades and drainage, including culverts and tiling, upon the following public highways in said district, to wit:

1. The Aberdeen and Prairie Station road from the corporate limits of the City of Aberdeen by way of Prairie Station to the Clay County line at the end of the Squanton-chee Levee, a distance of 10.26 miles.

2. The Aberdeen and Egypt road from the corporate limits of the City of Aberdeen to the Chicasso County line near Egypt, a distance of 10.75 miles.

3. The Aberdeen and Gibson road from the corporate limits of the city of Aberdeen by way of Gibson to the Chicasso county line, about one and one-half miles west of Gibson, a distance of 9.33 miles.

4. The Strong Station road from Station 121 on the Aberdeen and Prairie Station road, as now surveyed to Strong Station, a distance of 9.52 miles.

5. The new Muldon road from Station 341 on the Strong Station road, as now surveyed to Muldon, a distance of 3.1 miles.

The surveys, profiles, estimates, plans and specifications for said work are now on file with the Clerk of the Board of Supervisors of said county, where the same may be inspected by prospective bidders; they may also be had at the office of the Engineer, L. G. Smith, Aberdeen, Miss.

The approximate quantities of work and materials are as follows:
Grading, 193,649 cubic yards.
Concrete, 2381 cubic yards.
13" Pipe, 268 feet.
18" Pipe, 420 feet.
24" Pipe, 942 feet.
36" Pipe, 756 feet.

Each bid, as an evidence of good faith, must be accompanied with a certified check in the sum of one thousand dollars (\$1000) on some solvent bank or trust company in Mississippi doing a commercial business, payable to the order of Wm. H. Carlisle, Secretary.

The Commissioners reserve the right to reject any and all bids.

J. L. SHELL,
N. H. CARLISLE,
N. H. HENDERSON,
Fourth District Good Road Commissioners.

MISCELLANEOUS

THE CITY OF FORT WORTH, TEXAS.
will receive sealed bids until September 5, 1931, for construction of a dam containing about 300,000 cubic yards of earth work and 60,000 cubic yards of masonry. Also concrete pipe line about 6 1/2 miles long. Details on application to THE BOARD OF ENGINEERS, City Hall, Fort Worth, Texas.

Air Compressor, Feed-Water Heater and Boiler

The City of Clarksville, Texas, wants bids on one 400 cubic feet capacity air compressor; one feed-water heater, efficiency not less than 200 F.; and one 100 H. P. horizontal tubular boiler. Each item to be bid on separately. Bids to be opened at City Hall at 8:30 P. M. August 22, 1931.

The city reserves the right to reject any and all bids.

JOHN R. WEBB, City Clerk.

Dredging

NOTICE TO CONTRACTORS.

Office of City Engineer, City Hall,
Richmond, Va., August 1, 1931.

Sealed proposals will be received at this office until 12 M. Tuesday, September 5, 1931, for doing certain dredging along the left shore of James River to Nicholson street.

Full information may be obtained upon application at this office.

A certified check for \$250, made payable to the Treasurer of the City of Richmond, must accompany each bid as a guaranty of execution of contract.

The Committee on Improvement of James River reserves the right to reject any and all proposals offered.

CHAS. E. BOLLING,
City Engineer.

Cast Iron Pipe

The City of New Bern, N. C., desires bids for furnishing (1500) fifteen hundred feet of six-inch standard cast-iron pipe for water main, delivered f. o. b. cars at New Bern.

All bids must be sealed and addressed to F. T. Patterson, City Clerk, New Bern, N. C., and endorsed on the envelope "Bid for furnishing water pipe." Bids will be opened September 1, 1931.

The city reserves the right to reject any and all bids.

THOS. F. MCCARTHY,
Chrm. W. and L. Committee.

Cast Iron Pipe

FOR THE CITY OF CHARLOTTE, N. C.
Sealed proposals will be received on August 24, 1931, by the Board of Water Commissioners of the city of Charlotte, N. C., for furnishing about 5500 tons of 24-inch cast-iron bell and spigot water pipe and about 60 tons of specials. Alternate bids will be considered for wood pipe for about four miles of the line. Certified check for \$5000 must accompany all bids.

Specifications, form of proposal and contract will be on file at the office of the Superintendent of Water-works and at the office of the Engineer in Charlotte, N. C. The right is reserved to reject any or all bids.

BOARD OF WATER COMMISSIONERS,
Engineer, GILBERT C. WHITE.

Notice to Contractors

Sealed proposals will be received until 12 M. September 15, 1931, by the Sewerage Commission of the City of Rock Hill, S. C., for the construction of three (3) Sewage Disposal Plants, consisting of Imhoff tanks, sprinkler filters, contact beds and sludge beds, in accordance with plans on file in the office of the Engineer for the Commission.

Plans can be obtained after August 25, 1931, from Thos. W. Cothran, Engineer, Rock Hill, S. C., on deposit of certified check for \$25 (check to be returned if plans are returned before September 20, 1931). Each bid must be accompanied by certified check on a national bank for \$1000 guaranteeing to enter into contract if awarded same and the execution of bond in accordance with contract.

The Sewerage Commission reserves the right to reject any or all bids.

J. B. JOHNSON, Chairman;
W. C. WHITNER,
J. J. KELLER,
J. M. CHERRY,
W. G. STEVENS,
Commissioners.
Rock Hill, S. C., August 12, 1931.

Proposals for the Construction of Water and Light Plant

South Jacksonville, Fla., July 27, 1931.

Bids will be received by the Board of Bond Trustees of the City of South Jacksonville, Florida, until 4 o'clock P. M. August 24, 1931, for furnishing approximately 5 miles 8, 6 and 4-inch cast-iron pipe and specials; hydrants and valves; drilling 12-inch well; furnishing tower and tank; two boilers; feed-water heater; pumps; generator, exciter, switchboard, etc.; simple valve engine; laying cast-iron pipe; constructing reservoir; tower foundations; installing machinery; furnishing and installing electric line work, and constructing power-house. Specifications may be obtained from and plans seen at the office of the Consulting Engineer. Each bid must be accompanied by a certified check for 5 per cent. of the total of bid. The right is reserved to reject any and all bids.

W. W. SWAIM, Chairman;
A. C. MACEY, Secretary;
Board of Bond Trustees,
South Jacksonville, Fla.
WILLIAM W. LYON,
Consulting Engineer,
305 Duval Bldg., Phone 849,
Jacksonville, Fla.

Special Advertisements of General Interest.

"TIMBER TO BURN"

We have on our list some of the biggest bargains in tracts of timber, both soft and hard woods, that it has been our pleasure to offer the public, and intended buyers will do well to get our list.

We also have several coal properties for sale.

BELLER & WILSON

Headquarters for Timber and Coal. 402-404 Nat. Exchange Bank Bldg., ROANOKE, VA.

BEST BODY OF TIMBER LAND IN THE SOUTH

at the price, for Sale

15,000 ACRES, LOCATED in western part of Fannin County, Ga., between two Louisville & Nashville Railroads, with branch road running into property.

Will cut from 4000 to 5000 feet first class merchantable lumber to acre, consisting Poplar, Oak, White Pine, Hemlock, Ash, Birch and Hickory, not to mention Acid Wood, Tan Bark and Cord Wood; besides there is thousands of Crossties and Telegraph Poles.

Fine prospects for Copper, we think the same vein as Tennessee Copper Co. is now working, covers property.

In addition to above boundary, it is possible to get many thousands of acres same kind of land adjoining.

Price, if purchased immediately, \$12.50 per Acre. Address

DeWITT & MEREDITH, - - - Knoxville, Tenn.

I BUY AND SELL

Timber Lands
Mineral Lands

Colonization Tracts
Agricultural Lands

In Louisiana, Mississippi and adjoining States

J. Edw. Crusel, 1001 Hibernia Building New Orleans, La.

We have thousands of acres of virgin forest, the finest salt and sulphur mines known, unlimited petroleum, fuel oil and natural gas. Our soil is inconceivably rich. The climate allows of four crops in the same year from the same land. We have no transportation monopoly and no land monopoly. **WE NEED NO IRRIGATION. OUR LANDS ARE CHEAP.**

TIMBER FOR SALE

Timber, railroad ties, telegraph poles, bark, locust posts, cordwood and dimension timber, oak, poplar, chestnut, pine, hickory, off of four hundred acres near Hancock, Maryland; sidings on Western Maryland Ry., C. & O. Canal, and near B. & O.

W. F. THOMAS,
Munsey Building, Washington, D. C.

33,000 Acres Tennessee Coal and Timber Land

Same coal being coked near by Virgin Forest R. R. and all other investments inviting. For present development or future estate.

G. O. SMITH, Wheeling, W. Va.

Face, Fire and Pavement Brick, Tile Clay and Manufacturing Sites

ON THE
SOUTHERN RAILWAY AT NEWCOMB, TENNESSEE

We have a large deposit of Clay, Shale and Soapstone, Pure Lime Rock and Cement Rock, Building Stone and Pure White Silica Sand, with a bounding of Bituminous Coal and the best Cannel Coal in the world.

Analysis will be furnished on application for the above material and those looking for the best location.

For information you should write to the

ITALIAN BLUE GEM COAL CO.
NEWCOMB, TENNESSEE
PETER ZECHINI, Gen. Mgr.

ICE PLANT FOR SALE

Twenty-five-ton plant, practically new, well located in growing city of ten thousand. Good reasons for selling. Part cash. Balance terms. Address

J. R. FAIRCLOTH, DOTHAN, ALA.

Gilt Edge Securities For Sale

6% Private Corporation First Mortgage Bonds.
5% County and Municipal Bonds.

Write for information and references.
WIMER, RICHARDSON & COMPANY,
Investment Bankers, San Antonio, Texas.
Unincorporated.

Complete Saw Mill Plant, Dry Kiln and Logging Equipment

FOR SALE
Mill has a daily capacity of 25,000 feet. Logging outfit consists of Locomotive, three and one-half miles of tramroad and six log trucks. Eighteen to twenty million feet of choice Pine timber, well blocked. Mill located about 35 miles south of Savannah, on the Seaboard Air Line Railway. Fifteen to twenty million feet additional timber can be had in easy reach of this plant. For full particulars address

ALBERT FENDIG & CO., Brunswick, Ga.

PARTY WITH TRACTION ENGINE WANTED

The Llano (Texas) Commercial Club wants to get in correspondence with a party, who has his own traction engine, to haul granite blocks to railroad from different quarries. Distance 4 to 12 miles; 50 tons a day. Address

LLANO COMMERCIAL CLUB
LLANO, TEXAS

Electric Light Plant for Sale

The Electric Light and Power Plant of the **MANATEE ELECTRIC COMPANY**, at Bradentown, Florida, will be sold at an attractive price, if consummated within the next sixty days.

The Company has exclusive franchises for 30 years and operates the Electric Light and Power business in the adjoining towns of Bradentown, Manatee and Palmetto, the three largest and most progressive towns in "The Land of Manatee." Population 5000. Over 6000 commercial lights and over 200 street series tungsten and arc lights in operation. The plant is now earning eight per cent. over and above cost of operation, maintenance and other fixed charges, and the business is increasing over 25 per cent. per year. The plant is of ample capacity and is one of the most modern and up-to-date plants in the South. The towns are growing rapidly, and the business will undoubtedly double every three or four years. This is an excellent investment, and satisfactory terms will be made with the proper people. For terms, description of plant and other information address

JOHN A. GRAHAM Bradentown, Fla.

GEORGIA FARM LAND FOR SALE

About 10,000 acres fertile farm land within 38 miles of Savannah, Georgia; healthy location and good water, suitable for colonization. A good stand of yellow pine timber, estimated at 20,000,000 feet and thousands of cords of wood. Located for seven miles on two main line railroads, giving low freight rates, secured by water transportation competition, to Northern markets, with all-year markets close at hand. Will not divide tract. Will sell outright or put in property and take interest with financially able developing company.

W. W. ROBERTSON, Owner - - - NORFOLK, VA.

An Up-to-date Wood Working and Saw Mill Plant for Sale

Complete in every particular. Covering 2½ acres of land in the center of Norfolk, now doing a business of over \$100,000 per year. For sale cheap.

Details furnished on application.

ABBOTT MORRIS & CO. NORFOLK, VA

Woodworking and Manufacturing Plant For Sale by Owner

We offer for sale our entire plant, having an established trade of over twenty-five years and doing an annual business of over \$600,000.00.

The plant consists of thirteen acres, located in one of the principal cities of Georgia, and is covered with buildings, sheds and lumber yard.

The main building is of brick, 80x200, two stories, and equipped with up-to-date machinery for the manufacture of sash, doors and blinds and interior wood work. Has separate boiler plant and two 350-horse-power Corliss engines.

The office building is brick 70x100, three stories.

There are two brick drykilns, two warehouses, eight lumber sheds, stables and garage. The factory makes its own fuel, and there are two wells supplying ample water for all purposes.

Object of sale, owner wishes to retire from active management. Would not object retaining part interest.

Address MANUFACTURING PLANT, care of the Manufacturers Record, Baltimore, Md.

THE INDUSTRIAL BUILDING

Now under construction here has been built with the idea in view of attracting manufacturers to Baltimore. It is a modern concrete steel structure with 117,705 square feet of rentable floor space which is going very rapidly. The lessees of space in this building will have all of the many advantages this city affords to manufacturers. They include unlimited rail and water shipping facilities, unexcelled labor conditions, proximity to the great Eastern markets, close business relations with the vast Southern territory and

THE CHEAPEST ELECTRIC POWER ON THE ATLANTIC SEABOARD.

Our service will be furnished in the Industrial Building insuring a constant reliable cheap power supply to the tenants.

The Gas & Electric Company

ELECTRIC OFFICE

CONTINENTAL BUILDING

Any further information about the Industrial Building will be furnished by Mr. Charles M. Cohn, Secy.-Treas., 100 W. Lexington Street, Baltimore.

GOOD INDUSTRIAL SITES NEAR WASHINGTON, D. C.

FOR

Handle Works, Chair Factories Wood-working Plants of any kind; Brick Yard, Tile Works, Clayworking Plants of any kind; Knitting Mills, Sand and Gravel Plants, etc.

Ample high grade raw materials for such industries. Plenty cheap, good labor. No local taxation. Situated in Virginia, on main rail lines between Washington, D. C., and Richmond, 30 miles from Washington. On Potomac, River connecting with water points anywhere.

Come now and have first choice. Details gladly given by

H. B. HUTCHISON

Colorado Building

WASHINGTON, D. C.

**N&W
RY**

ICE PLANT AND COAL YARD WANTED

A progressive city of seven thousand population, situated in Piedmont North Carolina, having two lines of railway and a large manufacturing population, contains neither ice plant nor coal yard. This city affords an exceptional opportunity for the establishment of such an industry to the man who understands the business and is in a position to furnish good credentials and a reasonable amount of capital. This offers a good opportunity for getting into a profitable business. For further particulars write File M-3811, F. H. LaBaume, Agricultural and Industrial Agent, N. & W. Ry. Co., Roanoke, Virginia.

**N&W
RY**

TIMBER LAND FOR SALE

A tract of 757 acres of hardwood timber land, situated in Piedmont Virginia, is offered for sale. This property is situated eight miles from transportation, all down-grade haul, easy logging, and estimated to cut about three million feet of hardwood, consisting of poplar, white oak, chestnut and other timber. This is long-bodied, large size virgin timber. Price, \$10,000 in fee, or would prefer to sell timber at a reduction. For further particulars write File M-3759, F. H. LaBaume, Agricultural and Industrial Agent, N. & W. Ry. Co., Roanoke, Virginia.

SOIL WILL STAND ANALYSIS. \$25.00
and up for best of Farm Lands in El Paso Valley, under the Elephant Butte Dam.
RALPH W. LOOMIS, EL PASO, TEXAS.
Any Local Bank for Reference.

8% 7% 6%

We can sell you best securities of City Property or Farm Lands paying 8%, 7%, 6%.

Note Mortgage & Real Estate Co.
EL PASO, TEXAS

References—Any Local Bank.

Maxton Sash & Door Company's Plant FOR SALE

For particulars apply to B. F. McLEAN, Receiver, Maxton, N. C.

FOR SALE — SECOND HAND PIPE

PIPE for pipe lines. PIPE for fencing. PIPE for telegraph poles. PIPE for columns.

Complete stock, sizes 1 to 12 inches. Guaranteed in A1 condition. Special prices made on large quantities.

TEXAS SUPPLY CO., Beaumont, Tex

Bargain Sale

One two-car portable asphalt plant, capacity 1,800 sq. yds. per day.

One large and one small asphalt roller.

Six steel lined asphalt wagons, tools, etc. Subject to inspection. Address CONTRACTOR, Room 277, No. 50 Church St., New York.

Cement Plant

We have purchased the entire plant of the White Cliffs Portland Cement Company, White Cliffs, Ark. The machinery has been used less than one year and is all practically new.

One 20 and 38x54 St. Louis Tandem Compound Condensing Corliss Engine, complete, with condensing pumps; also one 48" triple leather belt about 125' long; price \$1500.

One 264-horse-power B. & W. Boiler, 160 pounds pressure, price \$1100.

Three 72x18 Horizontal Tubular Boilers, \$390 each.

One 18x10x12 Snow Underwriter's Pump, 1000-gallon capacity, \$550.

Two hundred Double-Deck Brick Cars, 24" gauge, roller bearing, \$5 each.

Four 30" Sturtevant Rock Emory Mills, \$100 each.

Six 42" Sturtevant Rock Emory Mills, \$150 each.

One Fairbanks Brick-Testing Machine, complete, with weights and brass molds, \$150.

All prices f. o. b. White Cliffs, Ark.

LOUIS S. SIMON & COMPANY,
P. O. Box 126, Station A, Houston, Tex.

FOR SALE

SECOND-HAND EQUIPMENT IN FIRST-CLASS CONDITION

70-TON BUCYRUS SHOVEL, SHOP No. 721, with air brakes, 2½-yard dipper.....	\$5800.00
70-TON BUCYRUS SHOVEL, SHOP No. 900, with air brakes, 2½-yard dipper.....	5800.00
70-TON BUCYRUS SHOVEL, SHOP No. 621, with air brakes, 2½-yard dipper, just rebuilt.....	6250.00
MODEL 60 MARION SHOVEL, SHOP No. 1412, with air brakes, 2½-yard dipper.....	5500.00
MODEL 20 MARION SHOVEL, SHOP No. 922, with air brakes, 1¼-yard dipper, just rebuilt.....	3750.00
No. 3 THEW REVOLVING SHOVEL, SHOP No. 105, good order.....	3500.00
10x16 VULCAN STD. GAUGE, SADDLE TANK LOCOMOTIVE, rebuilt.....	1800.00
9x14 VULCAN 36" GAUGE, SADDLE TANK LOCOMOTIVE, built 1910, used three months, LIKE NEW.....	1900 00
10-TON BROWN HOIST LOCOMOTIVE CRANE, 4-WHEEL, SELF-PROPELLING, steel boom 21', wooden boom 37'.....	2600.00
HOISTING ENGINES, CONCRETE MIXERS, CRUSHERS, NEW LIGHT RAIL-RELAYING RAIL, VULCAN LOCOMOTIVES, OLIVER DUMP CARS, INDUSTRIAL LOCOMOTIVE CRANES.	

HENRY W. PICKETT, 1107-8 Harrison Building, PHILADELPHIA, PA.

WATER-FRONT PROPERTY IN VIRGINIA

Suitable for factory development or private investment. 73½ acres high land, 6½ acres open water with a fine water-frontage of 1426 feet on Deep Creek near Gilmerton, close to Navy-Yard and not far from City of Portsmouth.

This excellent water-front property will become very valuable in the near future. At present there are railroad facilities within 500 yards. Will sell to quick purchaser for \$150.00 per acre.

S. L. NUSBAUM & CO.

Suite 600 Citizens' Bank Bldg., Norfolk, Va.

FOR SALE

1 18x30 Reversible Link Mine Hoist, D. C., S. D., 6½ ft. by 6 ft. wide; also one pair Double Drum, side by side; 4 10x12 D. D. Cableway Lidgerwood Hoists; lot Wire Cable, 1½ to 2½" diameter; 4 150 H. P. Horizontal Boilers, 125 lbs. steam; 4 66x17 Horizontal Boilers, 20 6" tubes, \$350 each; 1 10x12 D. D. Cableway Hoist, with or without boiler; lot Pumps and Heaters.

ALLENTOWN EQUIPMENT CO.,

Commonwealth Bldg., Allentown, Pa.

CONTRACTOR'S OUTFIT FOR SALE

One No. 2 Smith Mixer.
One No. 1 Smith Mixer.
One 6" Erie Centrifugal D. C. Pump with suction hose, intake and discharge pipe.
One 8" Morris Centrifugal, belt driven, with intake and discharge pipe.
One 16 H. P. C. C. Horizontal Engine.
Concrete Buckets and Dump Cars.
Two complete sets of Guy Derrick Fittings.
Two complete sets of Stiff-Leg Derrick Fittings.
Two Flory Hoisting Engines, D. C., D. D.
Guy Wire, Cable, Dump Buckets, Barrows, Picks, Shovels, and numbers of articles of use in the contracting business.

Address JOHN W. ASH, Austell, Ga.

PLANT SALE

Dinkys, Hoisting Engines, Dericks, Concrete Mixers, Traction Engines, Pumps, 1½, 3 and 4-yard Cars, Boilers, Bottom and Side Dump one-yard Buckets, Orange Peel Bucket, 3-yard Incline Cars, built 25% grade, bull wheels, cable, etc.

Garothers Contracting Company
ALTOONA, PA.

SPECIALS

FOR SALE

70-TON BUCYRUS SHOVEL, SHOP No. 721, with air brakes, 2½-yard dipper.....\$5800.00

70-TON BUCYRUS SHOVEL, SHOP No. 900, with air brakes, 2½-yard dipper.....5800.00

70-TON BUCYRUS SHOVEL, SHOP No. 621, with air brakes, 2½-yard dipper, just rebuilt.....6250.00

MODEL 60 MARION SHOVEL, SHOP No. 1412, with air brakes, 2½-yard dipper.....5500.00

MODEL 20 MARION SHOVEL, SHOP No. 922, with air brakes, 1¼-yard dipper, just rebuilt.....3750.00

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Three pairs twin Corliss engines, cylinders 20 by 42. Will sell at sacrifice. Guaranteed in first-class condition and can be delivered immediately. Can be separated if desired.
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One fine second-hand endless double leather belt, width 18 in. x 62 feet long.
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One 200" three-quarter housed steel-plate fan, 75,000 cu. ft. of air per min. capacity. Heater consists of six sections, containing 12,000 linear feet of 1" pipe.
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One 24"x8' Five-Step Cone-Head q. c. g. Lodge & Shipley Engine Lathe.
Two 3 1/2"x60' Fitchburg Lo-Swing Lathes.
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PLANERS
One 36"x36"x10' Three-Head Sellers.
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One 42"x42"x20' Single-Head Putnam.

MISCELLANEOUS
One Whiton Revolving Centering Machine.
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One Mumford 12"x40" Power Ramming Molding Machine.
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OF EVERY KIND

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I buy, sell, rent and exchange.
The best and the cheapest.
Let me know what you have for sale and what you want to buy.

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We have the largest stock of second-hand electrical machinery in the world. Send for our "monthly Bargain sheet," showing complete stock with net prices. We can save you fully one-third. All machines completely overhauled, tested and shipped practically "as good as new."

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Specially priced to save cost of moving

Made by Thos. Carlin & Sons Co., Allegheny, Pa., size No. 1, driven by a 50 H. P. 220 volt Westinghouse motor mounted on an extended base. The capacity is 6" square soft steel at 18 to 24 cu's per minute, and the knives are 32". Approximate weight, 131,000 lbs. In excellent condition and ready for immediate shipment.

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Direct Connected Units FORMERLY USED FOR LIGHTING Of Brooklyn Bridge

Unit No. 1. Walker generator, 425 amp., 125-volt, speed 280 rpm., D. C., Ball & Wood engine.

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Unit No. 4. Fort Wayne generator, 75 kw., 6 pole, 125 volt, speed 275 rpm., D. C., 14x14, McEwen engine.

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These two had only one year service.

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One 9x10 stationary, piston valve, high-speed engine, with automatic fly-wheel governor.

One 6x10 stationary high-speed engine, with automatic fly-wheel governor.

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Alternating Current Motors

Direct Current Motors

300 OF THEM

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In stock for immediate delivery.

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VERTICAL BOILERS AND STEAM ENGINES

All in first-class repair

Vertical Engines.	Horizontal Engines.
2 20 Horse-power.	1 30 to 35 Horse-power.
2 15 Horse-power.	1 20 Horse-power.
2 9 Horse-power.	1 15 Horse-power.
1 3 Horse-power.	

Vertical.	Horizontal.
2 40 Horse-power.	1 80 Horse-power.
1 15 Horse-power.	1 15 Horse-power.
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5 Steam Pumps. 1 Candy Cooler. New Vertical Steam Engines, 2 to 25 Horse-power. Send for circular.

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One 26"x14' Lathe. One 20"x10' Lathe. One 18"x8' Lathe. One 14"x6' Lathe. One 30 H. P. Traction Engine. One No. 2 B. Koeberling Cement Mixer. One No. 1 B. Koeberling Cement Mixer. One No. 1 Smith Mixer, with gasoline engine. One No. 1 Smith Mixer, with boiler and engine. Two 125 H. P. Hor. Tub. Boilers. Two 110 H. P. Hor. Tub. Boilers. One 90 H. P. Portable Boiler on skids. Three Berlin Planers and Matchers, 4"x12". One Mississippi Planer and Matcher, 4"x14".
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Engines, Boilers, Generators, etc.

2 30x48 Corliss Engines.
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1 22x32 Buckeye Engine.
2 Phoenix Tandem 12 and 20x16 Engines.
1 Allis Corliss Tandem, 22 and 24x48 Engines direct connected to generators.
SEND for list and prices.
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Two 90 K. W. 2300-volt 60-cycle single-phase General Electric Generators, with exciters, and three-panel switchboard.

Two 13"x12" Harrisburg piston valve automatic Engines, belted to above generators.

This equipment now in operation at Dyersburg, Tenn., and is only being set out for larger unit. Price of complete outfit as above f. o. b. cars at Dyersburg, Tenn., \$1300.
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10x14 Lodge & Davis, chucks fitted.
11x4 Mann, R. & F.
14x6 Davis, plain rest.
14x8 Le Blond, plain rest, chuck, P. C. F.
16x6 Reed, compound rest, P. C. F.
16x8 Fay & Scott, plain rest, P. C. F.
18x8 Lodge & Shipley, patent head chuck.
20x8 McMahon, compound rest, chuck.
20x8 Fay & Scott, compound rest, P. C. F.
21x14 Reed, high speed.
27x12 Pratt & Whitney, C. R., P. C. F.
28x10 Putnam, C. R., P. C. F.
28x10 Gleason, compound rest, taper.
32x12 Pond, C. R., P. C. F.
32x17 Bement-Miles, C. R., triple geared.
36x16 Reed, compound rest, P. C. F.
40x18 Newark, triple geared, C. R., P. C. F.
46x38 Fitchburg, T. G., C. R., P. C. F.
102x35 Bement, compound rest, T. G.
21x14 Powell, compound rest, P. C. F.
24x14 Niles, compound rest, P. C. F.
26x13 Fitchburg, compound rest, P. C. F.
84x20 Fitchburg, C. R.

SCREW MACHINES.
2x24 Jones & Lamson, flat turret.
20x6 Bardner & Oliver, friction head.
No. 2 1/2" Warner & Swasey, wire feed.
No. 2 1/2" Garvin, wire feed, friction head.
No. 1 Garvin, wire feed.
3/4" National Acme, automatic.
No. 6 Brown & Sharpe, friction head.
1" Smurr & Kamen, wire feed.
1/2", 3/4", 1" and 2 1/2" Pratt & Whitney automatics.
No. 3 2" Pratt & Whitney, wire feed.
No. 2 1/2" Pratt & Whitney, wire feed.
No. 1 7/16" Pratt & Whitney, wire feed.

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No. 2 Cincinnati, plain.
No. 4 Cincinnati, plain.
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DRILLS.
20" Prentice Bros., power feed.
15" Slate, sensitive.
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40" New Haven, sliding head, back gears.
30" Gang, plain radial.
5" Haub, plain radial.
7-spindle Slate, bedstead.

SHAPERS.
12" Gould & Eberhardt, crank.
15" and 20" Hendey, friction.
13" Lodge & Davis, crank.
28" Cincinnati, geared.

MISCELLANEOUS.
Boring Mill, 37" Bullard, 2 heads.
Grinder, Sellers, universal tool.
Planer, 36x36x8 Betts, 1 head.
Planer, 26x26x8 Pond, 2 heads.
Planer, 36x36x12 Betts, 4 heads.
Planer, 48x48x15 Farrell, 1 head.
Planer, 48x48x15 Pond, 3 heads.
Boring Mill, 10" Pond.
Grinder, Walker, electric surface.
Grinder, No. 2 1/2" Bath, universal.
Gas Engine, 8 H. P. Fairbanks.
Hammer, 50 lbs., Bradley, compact.
Hammer, 1600 lbs., Pratt & Whitney, drop.
Gear Cutter, 16x4 Gould & Eberhardt.
Grinder, 12x42 Landis, universal.
Pipe Machine, No. 6 1/2", Merrill.
Slotter, 16", Bement, motor driven.
Keyseater, No. 2 Davis.
Brake, 8" Niagara.
Pipe Machine, 3" Jarecki.
Grinder, 12x42 Landis, universal.
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Rebuilt and guaranteed for
immediate delivery

BOILERS.

- 1 180 H. P. Manning Vertical Tubular, 125 lbs. steam.
1 60"x18" Horizontal Return Tubular, 125 H. P., 125 lbs. steam.
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1 80 H. P. Economic, 100 lbs. steam.
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SPECIAL—Cheap before removal.
3 60"x18" Horizontal Return Tubular, 125 H. P., 125 lbs. steam, with Wilkinson Stokers. Large stock of return tubular and vertical types, all sizes.

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- 25"x16" Reynolds. 25"x16" Corliss.
24"x14" Cooper Tandem Compound.
25"x12" Greene. 20"x12" Greene.
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25"x10" Bates.
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Large stock of smaller sizes; also automatic and plain slide-valve, vertical and horizontal.

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- 34"x14"x10" Rand Single Straight Line, 1300 cu. ft.
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10"x10"x10" Cox & Sons Duplex, 275-350 cu. ft.
10"x10" Blaisdell Single, 135 cu. ft., belt driven.

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- 1 250-volt D. C. Westinghouse, direct connected to 19"x44"x48" Greene-Wheelock Engine.

- 1 250-volt D. C. Westinghouse, direct connected to 19"x44"x48" Greene-Wheelock Engine.

- 1 250-volt D. C. Westinghouse, 6-pole, direct connected to 10"x18"x10" Westinghouse Compound Engine, 315 R. P. M.

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- 1 250-volt Western Electric, 6-pole, belt driven, 500 R. P. M.

Large stock of Dynamos, Motors, all sizes.

HOISTING ENGINES.

- 54"x12" Webster, Camp & Lane, D. C., S. D. 7"x10" Lidgerwood, D. C., S. D., 40"x7" boiler.

- 7"x10" Ryan & McDonald, D. C., S. D., D. D. 7"x10" Copeland & Bacon, D. C., S. D., with base fitted for boiler.

- 64"x10" Flory, D. C., S. D., with 36"x7" boiler. 64"x10" Davis, S. C., S. D.

- 64"x10" Mundy, D. C., S. D.

WESTINGHOUSE ENGINES.

- 1 12"x22"x12" Westinghouse Compound, 135-300 H. P.

- 1 12"x20"x12" Westinghouse Compound, 100-160 H. P.

- 1 12"x19"x11" Westinghouse Compound, 80-120 H. P.

- 1 10"x18"x10" Westinghouse Compound, 65-100 H. P.

Large stock of Junior and Standard types.

FLYWHEEL.

4-ton, 25 ft. diam., 24" bore.

FEED-WATER HEATERS, PUMPS, GAS AND GASOLINE ENGINES, STONE CRUSHERS AND GENERAL EQUIPMENT.**MACHINE TOOLS****PLANERS.**

- 36"x36"x8" Betts. 26"x26"x7" Wheeler.

- 36"x30"x8" Pease. 30"x20"x4" Sellers.

LATHES.

- 36"x16" Triple Geared.

- 24"x14" Fitchburg Lathe.

- 24"x10" Modern, blocked to 34".

- 24"x16" Draper. 22"x18" Harrington.

- 20"x10" 6" Rahn-Carpenter.

- 20"x10" Rahn-Carpenter Gap Lathe.

- 20"x10" Bement-Miles. 20"x10" Pond.

- 20"x12" Lodge & Davis.

- 16"x8" Rahn-Carpenter.

- 16"x8" Carroll-Jamelson.

- 12"x8" Hendey Toolroom Lathes, with collets.

- Two 17"x8" Greaves & Klausman.

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- No. 3 Garvin Plain Miller, with dividing heads.

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- No. 2 Cincinnati Universal Milling Machine, complete, with vertical attachment, like new.

- About 30 Lincoln Type Milling Machines.

SHAPERS.

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- 30" Steptoe. 16" Steptoe.

- 30" Smith & Mills. 14" Steptoe.

PRESSES.

- Six No. 2 1/2 Philadelphia Power Presses.

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- PG-4 Ferracute. No. 3 Bliss Geared.

- No. 63 Bliss Geared.

DRILLS.

- 48" Gang Radial. 36" Morris Radial.

- 48" Hilles & Jones.

- 30" Gould & Eberhardt Upright Drill, with taper attachment.

- 30" Plain.

MISCELLANEOUS.

- 30-lb. Little Giant Trip Hammer.

- 14" Wells Bros. Bolt Cutter.

- No. 13 Pratt & Whitney Profiler.

- 48" Gang Radial Drill.

- 30"x12" Slab Miller.

- 1" Eaton, Cole & Burnham Pipe Machine.

- Two No. 5 Springfield Oscillating Surface Grinders.

- Two No. 14 Garvin Turret Lathes.

- 60-lb. Bement-Miles Single Frame Steam Hammer.

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Second-Hand, Rebuilt, Guaranteed, Wood Working Machinery

Cordesman Band Resaw.
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Full line of New Machinery (Woodworking).

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35 H. P. New Era.
15 H. P. Nash (light plant).
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Complete line of New Engines.

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CORLISS ENGINES

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1 16x42 Allis.
1 16x42 Brown.
1 18x42 Lane & Bodley.
1 20x48 Wetherill.
1 22x48 Hamilton.
1 24x42 Allis.
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Automatic Engines of all sizes.
1 40-ton Corliss Engine Type De La Vergne Ice Machine.
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Woodworking Machinery of all kinds.
Belting, Shafting, Pulleys and Hangers.
CLEVELAND BELTING & MACH. CO.,
Cleveland, Ohio.

Electric Light Units

- 25 K. W. Bullock Gen., 240 volts.
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Gen. Direct Connected to Engines.
Light **W. J. LINTON** Plants
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Four 100 H. P. Portable Return Flue Boilers. 12"x15" Erie City Engine. 12"x16" Birmingham Engine. 18"x22" H. S. & G. Engine. R. Hand Knife Grinder. 30" Outside Molder.

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Second-Hand

All sizes, 1/8 inch to 24 inches

Furnished with new threads and couplings, suitable for all practical purposes; large stock constantly on hand, together with a general assortment of used contractors machinery.

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ROLLING MILLS, ATTENTION!

The following Engines, purchased for use at Brooklyn Bridge, New York, in best of condition, will be sold at attractive prices and are a positive "find" for one who is contemplating installing a heavy Engine. **Immediate Delivery.**

- 1—1000 hp., 38x48 Wright Corliss, fly-wheel 25' in dia.

- 1—750 hp., 30x48 Wright Corliss, fly-wheel 20' in dia.

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- 1—325 hp., 22x36 Wright Corliss, fly-wheel 15' in dia

- 2—1000 hp. friction clutches.

- 1—750 hp. friction clutch.

- 1—475 hp. friction clutch.

A fine line of large driving gears, balance wheel and rope drive wheels, at prices which will prove an object to quick buyers.

Passes to inspect and all information upon application.

Jos. H. Thompson, Jr., Co.

HUDSON TERMINAL BUILDING, NEW YORK

WE MAKE A SPECIALTY OF PUMPS FOR ALL PURPOSES. VERY LOW PRICES WILL BE QUOTED ON THE FOLLOWING LOT RECENTLY RECEIVED:

- Two 14x20x10 1/2"x12 Blake Compound, have 8" suction, 7" discharge, capacity 710 gal. per minute.

- One 18 1/2"x12x10 Worthington, 8" suction, 7" discharge, capacity 1000 gal. per minute.

- One 16x9x12 Worthington UNDERWRITERS' FIRE PUMP, 750 gal. per minute.

- Two 17x12x15 Worthington Outside Packed Plunger Pumps, for 200 lbs. Pressure; 10" suction, 8" discharge.

- One 12x14x10 Worthington, 10" suction, 10" discharge, low service pump, capacity 1325 gal. per minute.

- One 14x7x10 Worthington, 350 gallons per minute, 6" suction, 5" discharge.

Send for our list of Pumps. We can furnish recent patterns of Standard Pumps at about one-half new prices. All details mailed upon request.

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Claremont & West Side Aves., Jersey City, N. J.

ENGINE BARGAINS

- 8x12" Erie City Automatic.
9x10" Ames Automatic.
10x10" Watertown C. C. Automatic.
10x14" Ide Automatic.
12x14" Atlas Automatic.
13x18" Erie City L. H. 4-valve.
13x21" Buckeye Automatic.
14x21" Armstrong & Sims C. C.
14x23" Atlas R. H. Automatic.
15x21" Erie City R. H. Automatic.
16x16" Rice R. H. Automatic.
18x30" Vilter Throttling Governor.
14x36" Allis L. H. Corliss.
16x42" Cooper R. H. Corliss.
18x42" Allis R. H. Corliss.

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THREE 150 H. P. RP. ERIE BOILERS

FOR SALE.

In good condition. Full particulars upon request. TONAWANDA BOARD & PAPER CO., Tonawanda, N. Y.

MANY AAA1 CORPORATIONS SAVE 50%

By securing our proposition on Power Equipment

We offer for Immediate Delivery High Pressure Boilers, Engines, Generators, Motors, UNDER GUARANTEE, to fill practically any requirement.

Write or Mail Your Inquiries to

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Machinery Bargains

- 1 14"x12" Girder Frame Corliss Engine.
1 120"x18" Girder Frame Corliss Engine.
3 66"x16" Horizontal Tubular Boilers, 125 lbs.
2 42"x14" Horizontal Tubular Boilers, 125 lbs.
5 72"x20" Horizontal Tubular Boilers, 100 lbs.
3 50 H. P. Gasoline Engines.
1 18 1/2"x8"x10 Worthington Duplex Steam Pump.
2 14x8x12 Canton-Hughes Duplex Steam Pumps.
1 60" Sturtevant Heating Fan and 1500 ft. 1" Pipe Coils, direct connected to 5x5 Vertical Engine.

- 1 80" Sturtevant Heating Fan with 2500 ft. 1" Pipe Coils.

- 200 High-grade Vault Doors.

- 200 1000 to 8000-gallon capacity Tanks.

- Write for our Bargain List No. 239.

CHICAGO HOUSE WRECKING CO.

35th and Iron Streets CHICAGO, ILLINOIS

Rebuilt Engines and Boilers

Engines—Corliss.—18x42 Lane & Bodley, 18x36 Ohio Heavy Duty, 16x42 Allis, 12x30 Lane & Bodley.

Engines—Automatic.—14 1/2"x24 Buckeye, 11x16x12 Buffalo Compound, 13 1/2"x15 Taylor, 13x16 Atlas, 12x12 Harrington-Ideal, 13x12 Phoenix, 12x14 Green, 12x12 Armstrong & Sims, 11x16 Atlas, 10x12 Valley, 8x14 Noyes.

Engines—Throttling.—18x24 Atlas, 14x18 Sinker-Davis, 14x14 Lewis Vertical, 12x16 Reed, 12x14 Brownell, 10x16 Bass, 10x12 Atlas, 8x14 Lane & Bodley, 8x10 Erie, 6x8 Industrial.

Boilers—Stationary.—72x18, 66x16 High-Pressure, 72x18 Standard, 72x16, 66x18, 60x16, 60x14, 54x14, 48x14, 44x14, 42x12, 36x16, etc.

Boilers—Fire Box.—100, 80, 60, 50, 40, 35, 30, 25, 20, 16, 12, 10 and 8 H. P., etc.

Boilers—Vertical.—50, 40, 35, 30, 25, 20, 16, 12, 10, 8, 5 and 3 H. P., etc.

Heaters.—All sizes, Open and Closed.

Pumps.—All sizes, Single and Duplex.

Electrical.—30 K. W. Generator, direct connected to 8x10 Skinner Engine; 20 K. W. Generator, direct connected to 8x10 Economic Engine; 18 K. W. Belted Generator.

Miscellaneous.—Sawmills, Lath Mills, Edgers, Cut-off Saws, Re-Saws, Blowers, Exhaust Fans, Tanks, etc. Write for list. Also full assortment of new machinery.

Sole manufacturers of the celebrated

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Send for circular.

THE RANDLE MACHINERY CO.

1734 Powers Street CINCINNATI, OHIO

For Sale—Nearly New

Boilers, 50, 35, 20 H. P.

Compressors—Sullivan Straight-Line, 8x8x10, 9x9x12; Rand, 12x12x16.

Hoists—30 H. P. Flory, 6x6 O. & S., 5x5 Double Bacon.

Drills, piston and air hammer.

12-lb. Relaying Rail.

12"x18" Buchanan Crushing Rolls.

CAROLINA BARYTES CO., - Stockhouse, N. C.

Electrical Equipment

Direct-Connected Lighting Sets, 110-125 volts.

9 K. W. Crocker-Wheeler, with Case Engine.

15 K. W. General Electric, with Ideal Engine.

100 K. W. General Electric, with Ball Engine.

10-25-50-100 K. W. 110-125-volt Belted Generators.

250 K. W. Thresher, 110-125-volt Belted Unit.

30-50-75-100 K. W. 220-250-volt Belted Generators.

5-10-20-25-30-50-75 H. P. 220-volt Motors.

150 and 300 K. W. Belted Alternators, 2 and 3 phase, 25 and 60 cycles.

Alternating Current Motors, all sizes, cycles and voltages.

Write for list and prices.

DANIEL KILLION,

211 N. Third St., Philadelphia, Pa.

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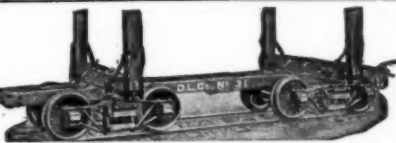
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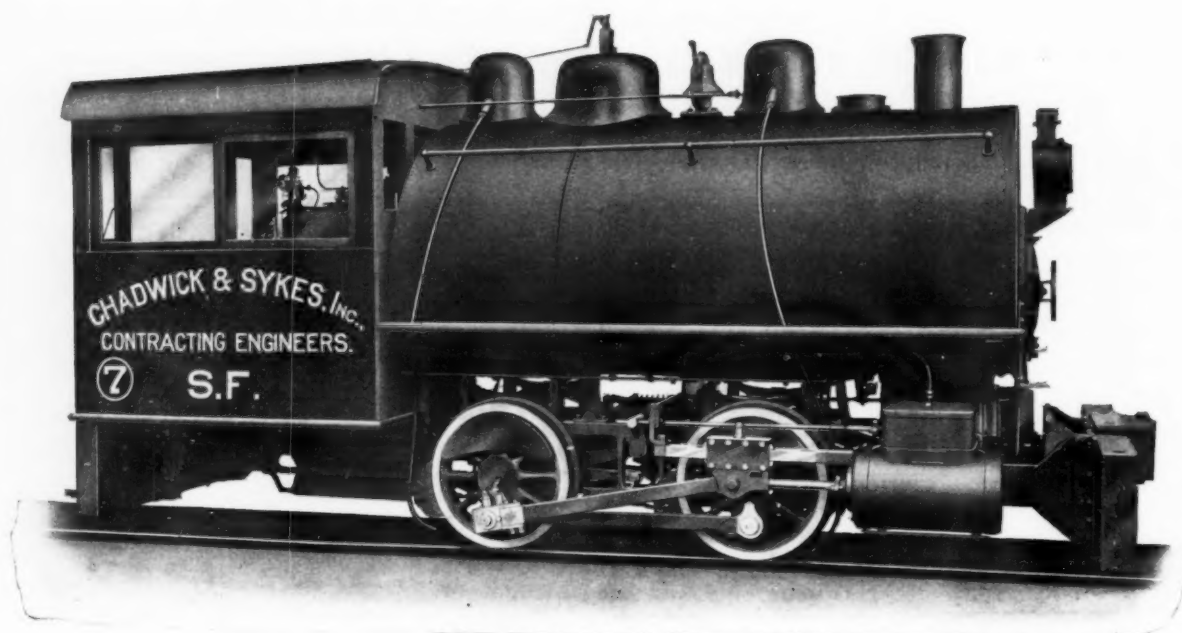
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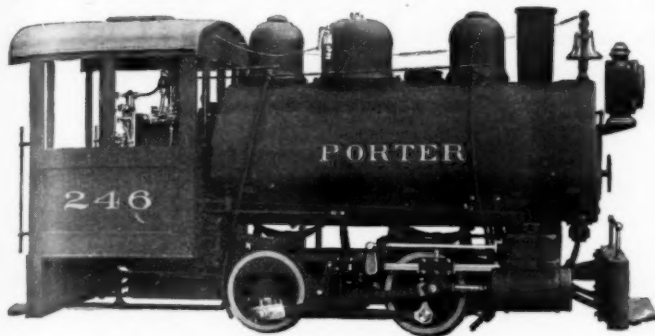
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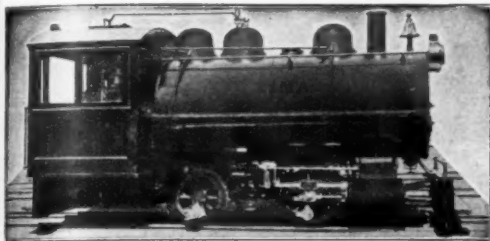
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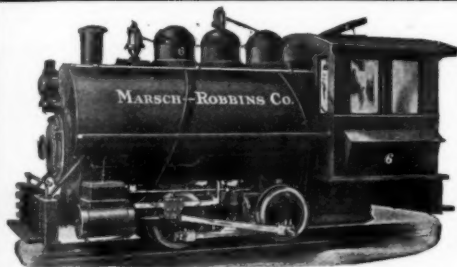
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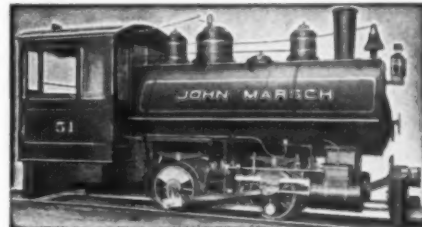
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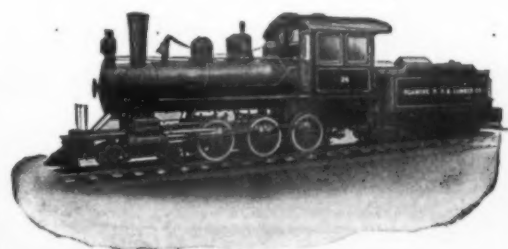
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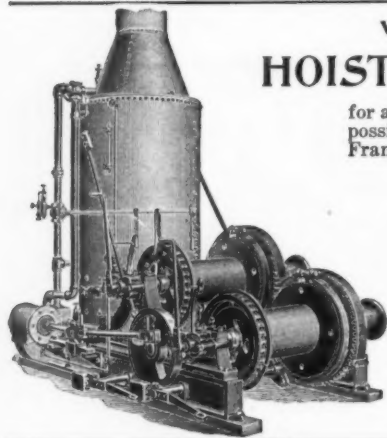
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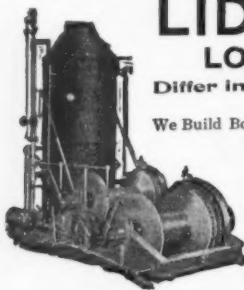
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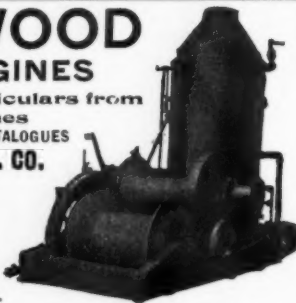
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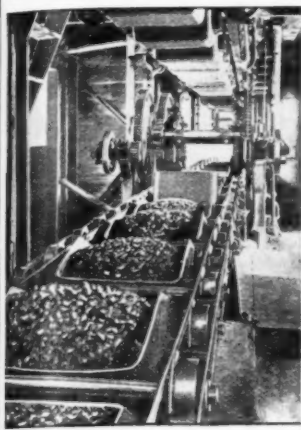
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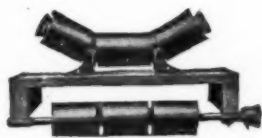
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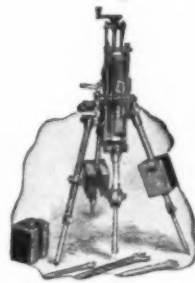
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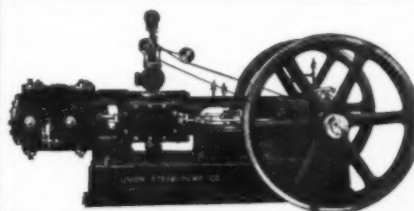
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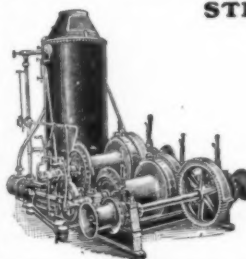
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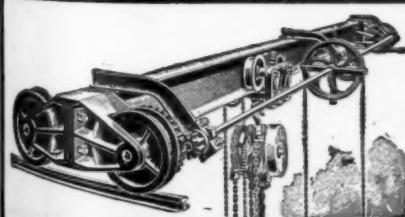
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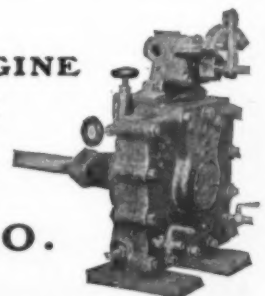
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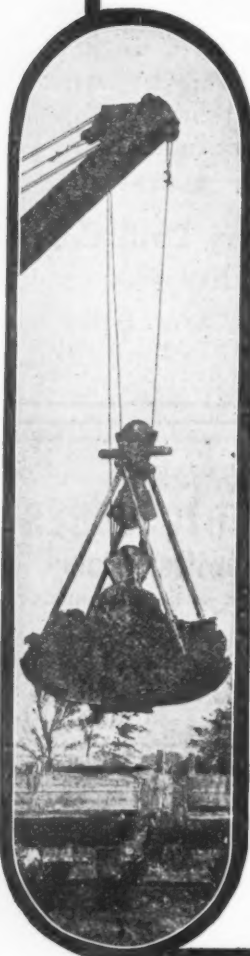
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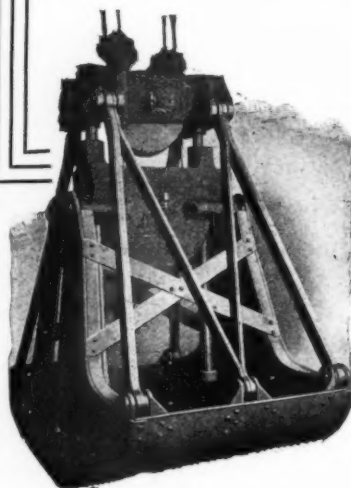
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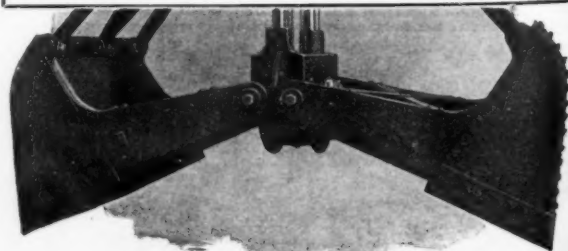
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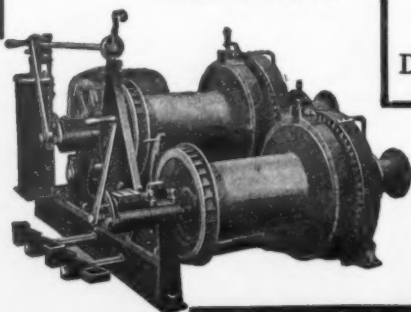
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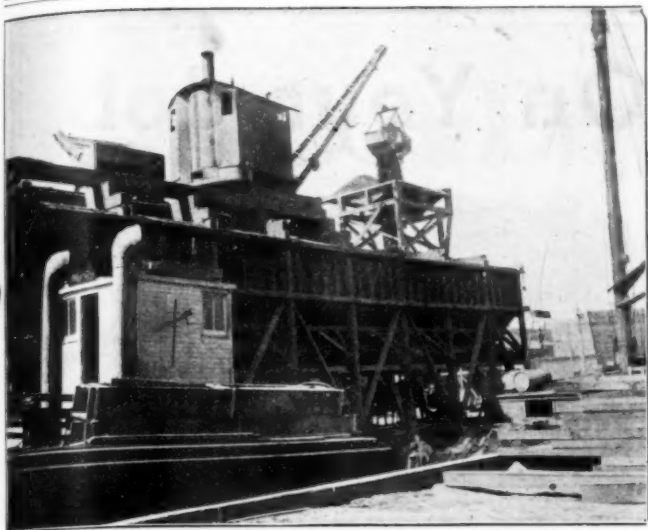
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Wherever materials are being handled under extraordinary conditions, you will most generally find a BROWNING LOCOMOTIVE CRANE successfully doing the work.

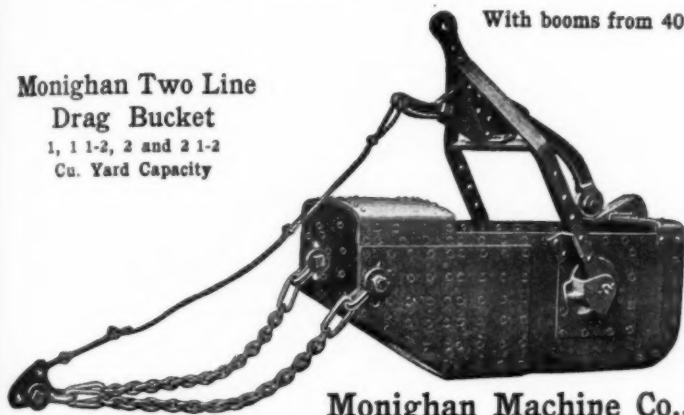
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No. 2 Excavator with 70 ft. boom and 2 yard bucket

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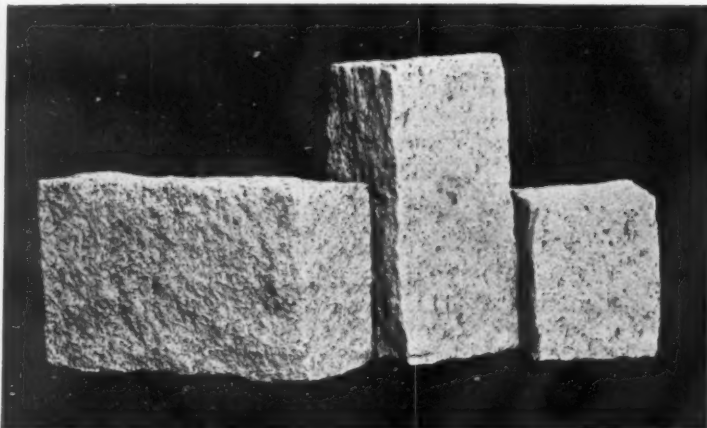
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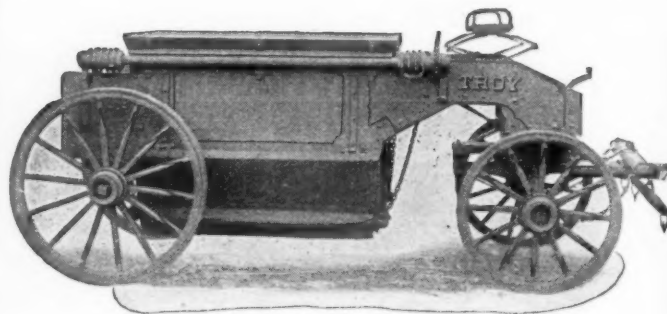


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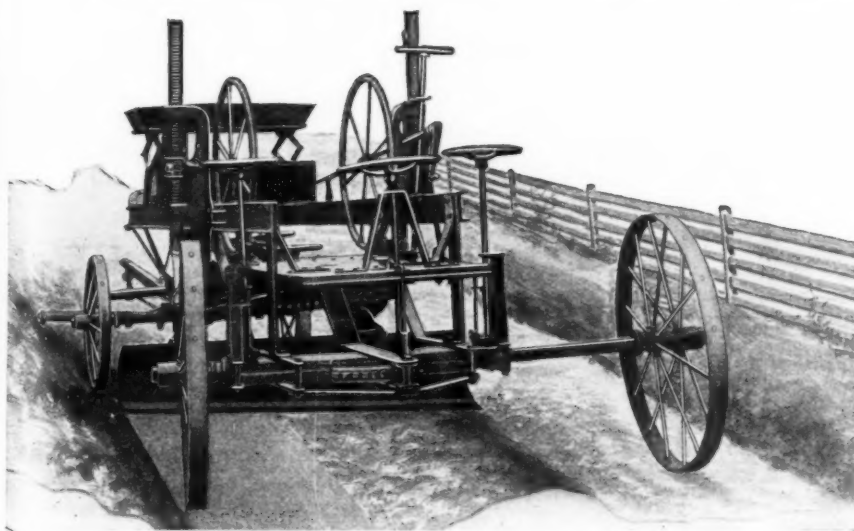
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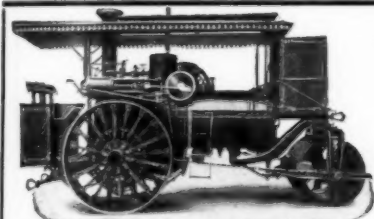
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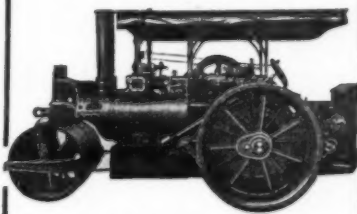
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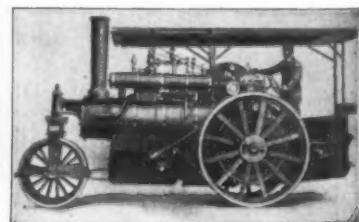
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OVER THREE MILLION FEET IN USE IN MORE THAN THREE HUNDRED CITIES IN THE UNITED STATES AND FOREIGN COUNTRIES

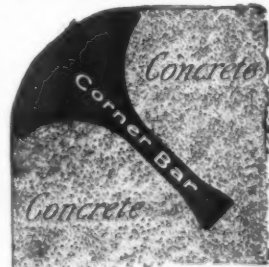
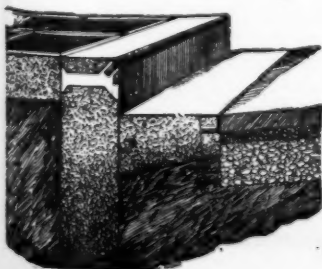
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ARCHITECTS are invited to read pages 242-243 "Sweet's Index"

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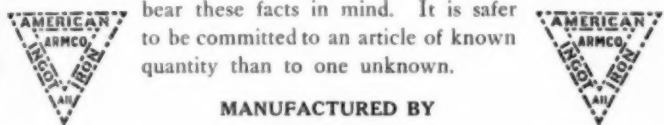
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In every department of roadway construction—from the country highways to the great railway systems—their use has met with universal success and with unqualified approval.

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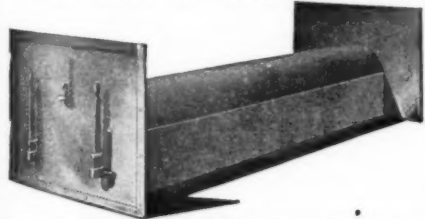
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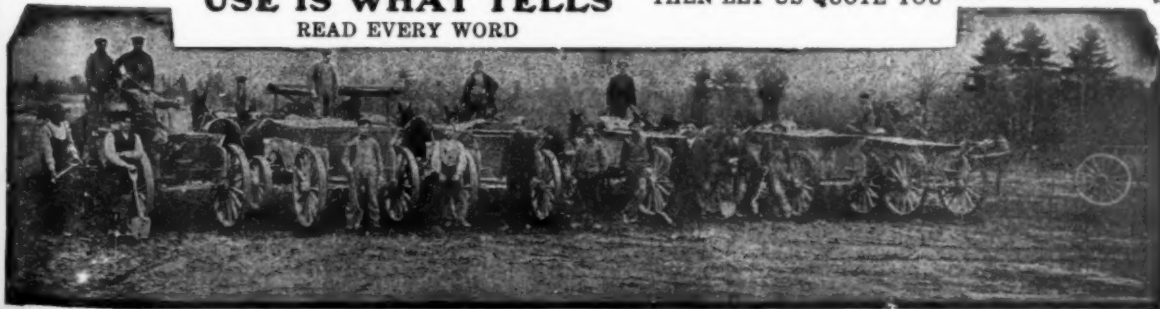
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(PATENTED)
MADE OF
ANTI-CORROSIVE No-Co-Ro METAL GALVANIZED SHEETS

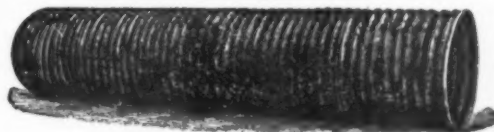


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SOLE MANUFACTURERS
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These Corrugated Metal Culverts



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Cast Iron PIPE

in all regular sizes, 3 inch to 84 inch

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Elbow, Tee, Male and Female and Air Pump
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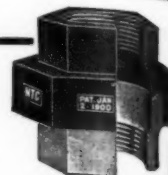
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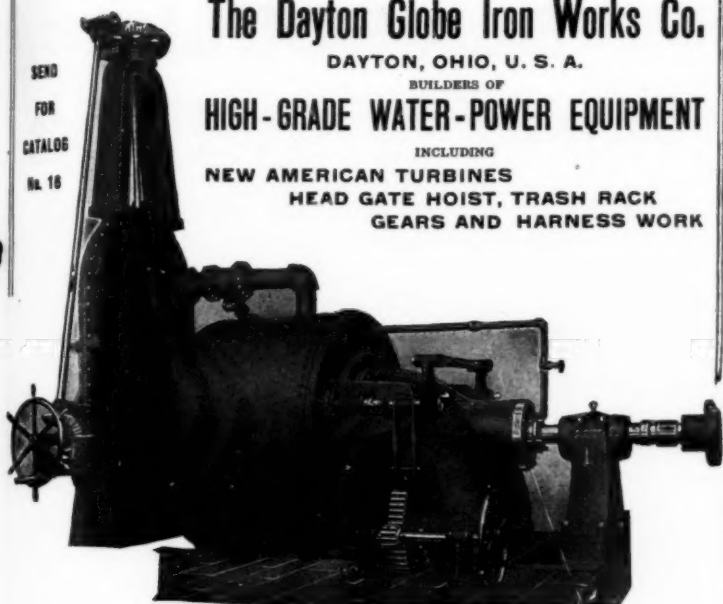
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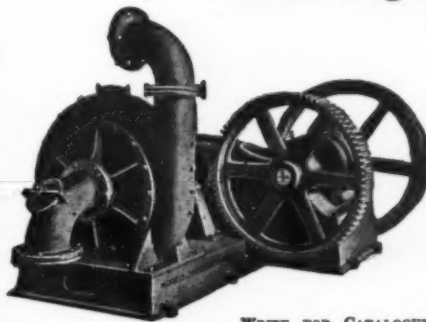
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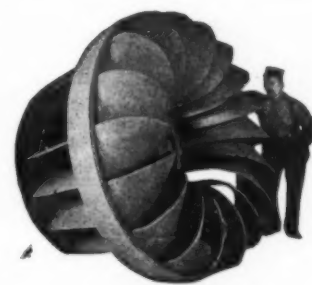
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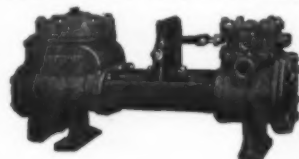
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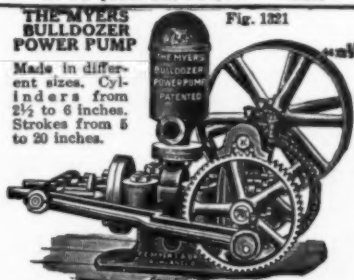
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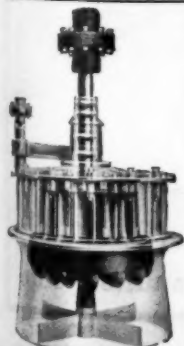
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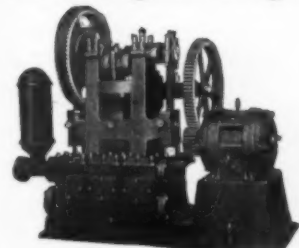
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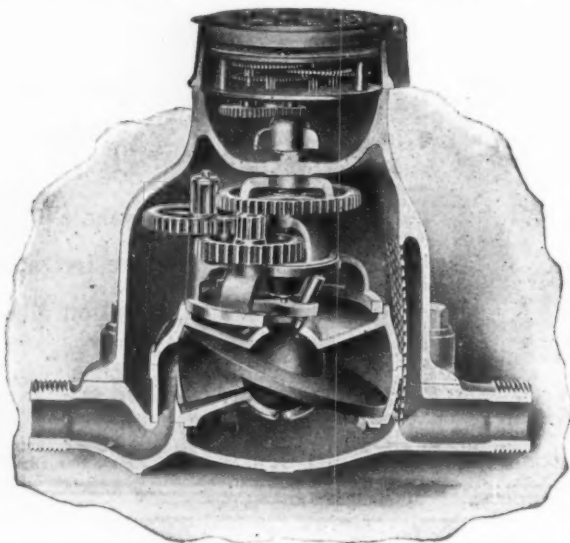
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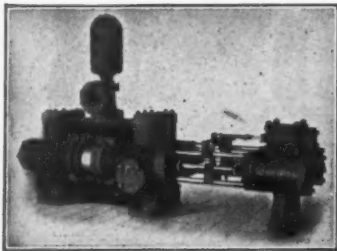
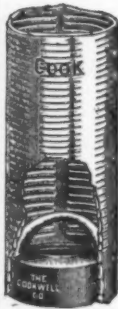
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from shaft are of-
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deep Artesian Wells.
Single Stroke Pumps
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Ejectors especially adapted for Municipal
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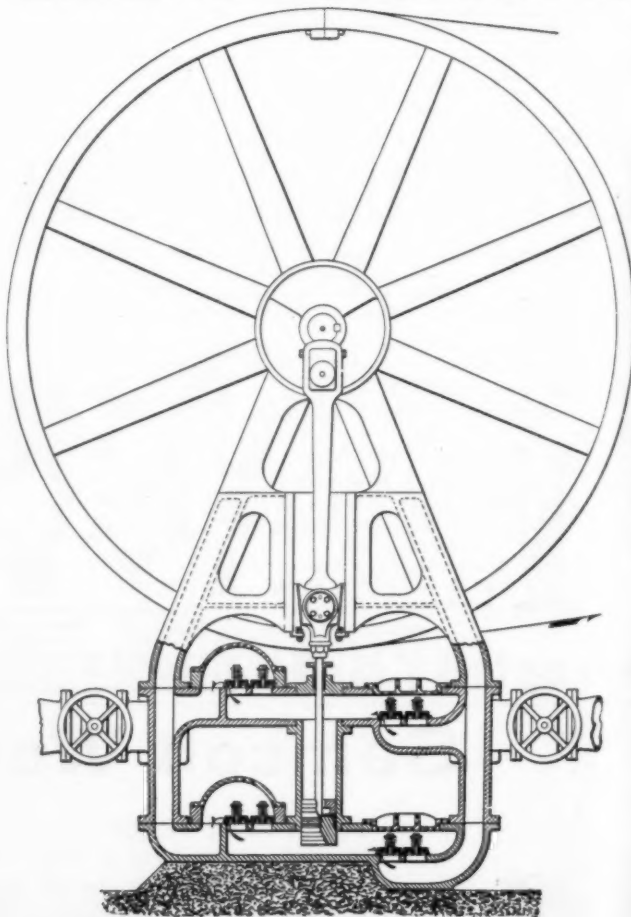
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It is a departure in pumps and the result of years of tests and experiments. Just the thing for pumping against high heads, or pumping gritty or sandy liquids; and the efficiency is not only high, *but remains high*. It saves wear and power where the enclosed impeller type fails. It's as low in price as other first-class pumps of same capacity and head. Made for horizontal or vertical shaft, single or multi-stage.



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The Slogan of the Cameron—"Character: the Grandest Thing."

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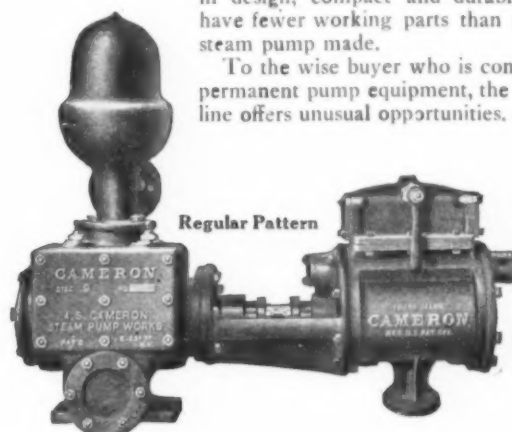
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In pump building it is not sending out a pump with high efficiency at its first trial that is difficult. It is building a pump with *lasting* efficiency. That requires the greatest skill, care and experience.

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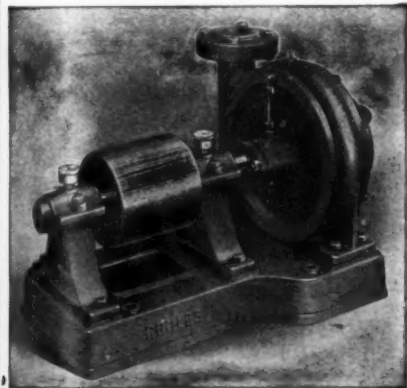


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A. S. Cameron Steam Pump Works
FOOT E. 23d ST., NEW YORK

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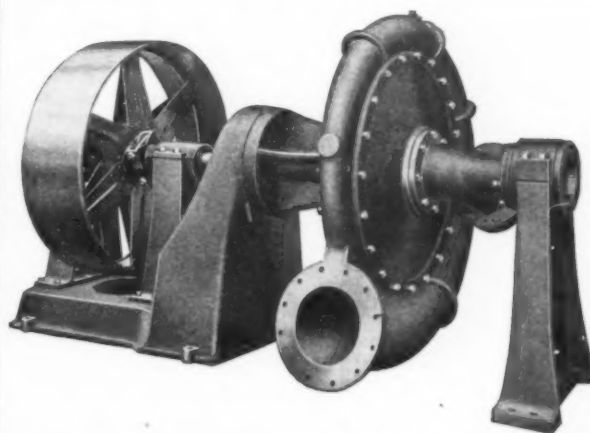


Include types for every class of pumping. They are built for hard service and to meet the most exacting requirements.

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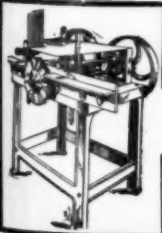
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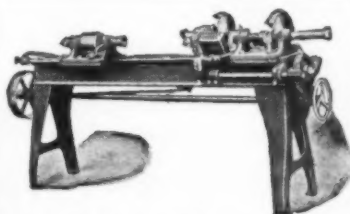
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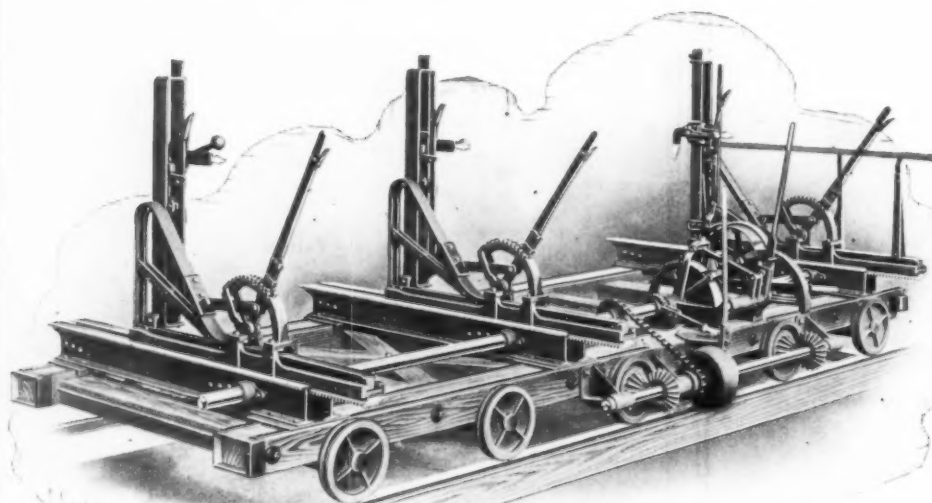
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SAW MILL MACHINERY

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We know just what a first-class mill needs, for we have been studying Saw Mill requirements, and successfully designing and building Saw Mill Machinery, for many years.



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Let us acquaint you with the Knight Line.

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QUALITY—EFFICIENCY
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Both CYLINDER and REGISTER gate
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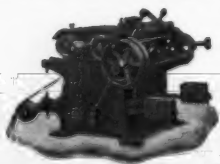
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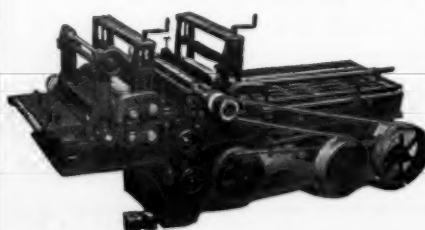
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different machines for
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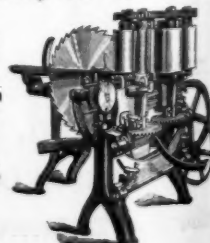
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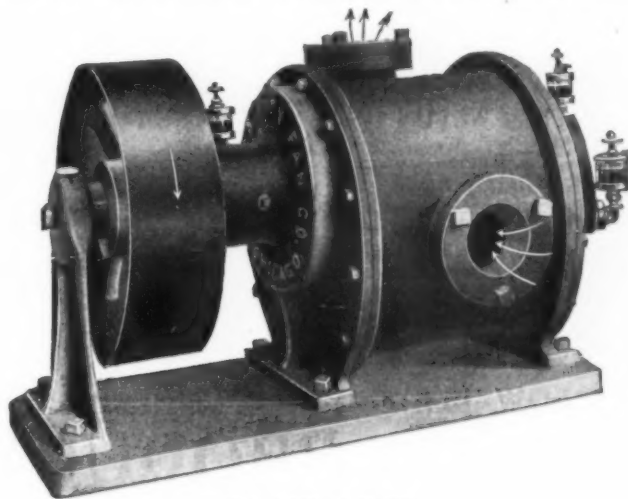
Our Direct Acting Steam Feed with Woods' Improved Steam-jacketed End Valves is the best thing of its kind yet offered, and actually more economical in the use of steam than the average slide-valve Steam Engine. It is also self-draining, preventing freezing in cold climates.

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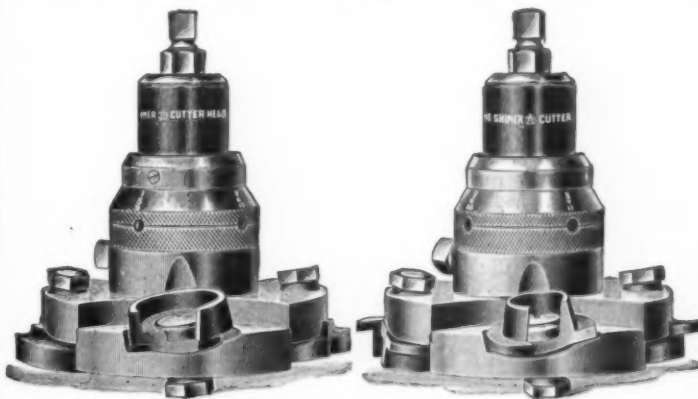
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1532 McCORMICK BUILDING
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Are especially adapted to the wants of those who
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Manufacturers of

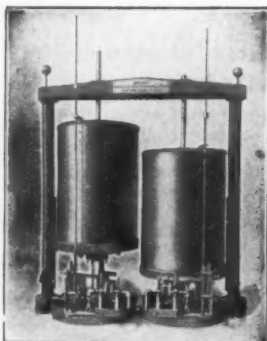
COTTONSEED OIL MILL

AND

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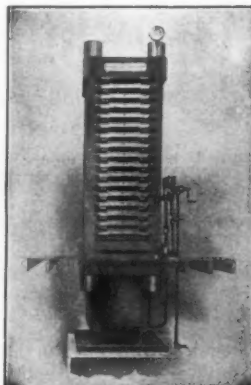
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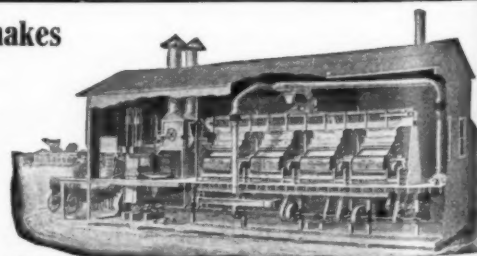
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Van Winkle Gin & Machine Co.

Atlanta, Ga., U. S. A.

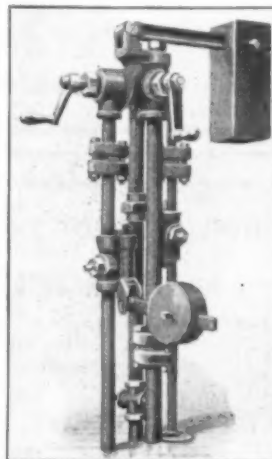
Modern Cottonseed Oil Mill Machinery

Designed to increase oil yield;
save power and reduce labor costs.

Machinery guaranteed to give results

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MACHINERY CO.**

Piqua, Ohio

Cleans
Cotton
Seed
thoroughly

THE CARVER COTTON SEED CLEANER

Removes all foreign substances from seeds before they enter
linters. Protects all other machinery, lessens wear on linter-
saws and heightens quality of lint. Special feature is revol-
ving screen, on to which seeds are drawn by pneumatic suction
and delivered by gravity to linter conveyor.

Two sizes, 60 and 120 tons.

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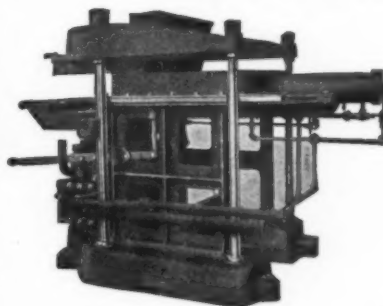
Carver Cotton Gin Company
E. Bridgewater, Mass.Atlanta Office,
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2

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Improved
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**CAKE
FORMER****STRONG
CLEAN-CUT
SPEEDY**Cakes Perfect
Uniform in SizeOnly one man to
operate it.Your OIL MILL not
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Get Full Particulars

The Callahan Guarantee with each machine

THE W. P. CALLAHAN CO.Inventors and Manufacturers of Complete
Oil Mill Equipments of All CapacitiesREPRESENTATIVES
Charlotte Concrete Co., Charlotte, N. C.
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First-rate rail and water transportation. Fuel and raw material for almost any kind of industry readily obtained. Good labor securable. Right in the midst of a thriving manufacturing center. Southern market near and easily reached. In every respect these sites meet the requirements of modern commerce.

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General Industrial Agent Seaboard Air Line Railway
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Why struggle for existence against the fearful odds of burning competition in a field where the natural resources are fast becoming exhausted, where transportation rates are high, and where the supply far exceeds the demand? Texas City, Texas, is the heart of the great Southwest development movement, and offers the manufacturer opportunities and advantages unexcelled.



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TEXAS CITY is rapidly attaining to prominence as a commercial, industrial and shipping center. The reason for this is obvious. Texas City is the only practical mainland deep-water harbor on the Gulf Coast of Texas, and offers the manufacturer every advantage in the way of modern transportation convenience, both rail and water. He is thus enabled not only to assemble the raw material quickly and at a low cost, but it puts him in direct connection with the market of the world.

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For the Manufacturer or Wholesaler FAYETTEVILLE, N. C.

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In the midst of a fine timber section, any and all kinds of woodworking industries will pay. A BLEACHERY will yield handsome profits.

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For further information address

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Offer opportunities and untold advantages for every line of business. Situated in the heart of the great COTTON BELT, in a country that is growing by leaps and bounds, and knows no hard times, they offer splendid inducements to merchants, manufacturers, professional men and every man that is willing to work. Correspondence solicited.

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Offers excellent locations for

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Available Factory Sites. Abundance of Raw Material and Good Transportation Facilities.

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with splendid deep water harbor, 12 miles from Gulf of Mexico, also on Southern Pacific Railroad main line, challenges comparison as advantageous

SITE FOR INDUSTRIES

In addition to most favorable water and rail transportation facilities, there are vast supplies of cypress, gum and other woods contiguous, affording attractive opportunities for woodworking establishments. Proof, successful plants now here. New R. R. Station "Ditch" just outside city limits, where these sites are.

Many other opportunities include canneries for fish, oysters and vegetables.

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FERTILE FARMS

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It penetrates the most fertile and best manufacturing and industrial sections of Georgia and Alabama, and furnishes easy and quick transportation at reasonable rates.

Specific information regarding any particular line of industry furnished on application.

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Just For Woodworkers

The woods are full of them—oaks, hickories, poplars, ash, elm, maple, chestnuts, gums, locust, dogwood—waiting to be used up by enterprising and ready-handed mill men, and the best locations on the Southern Railway lines at particular points where such men are wanted to manufacture all kinds of furniture, vehicles, implements, building supplies, handles, spokes, bobbins, spindles, spools, cross-arms, staves, slack and other barrels, crates and boxes, whip stocks, and all the little articles made from these woods and from waste. Your best opportunity; seize it. For specific information address

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1375 Pennsylvania Avenue

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Marvelous Progress of West Virginia

The following table tells more graphically and convincingly of the remarkable progress of West Virginia than it is possible to convey in any other way.

This table is worth your close study.

It strikingly emphasizes not only the State's steady expansion in all directions, but also its limitless possibilities, and outlines in a forceful manner the opportunities available for the investor, manufacturer, farmer and homeseeker.

	1900	1910
Coal mined, tons.....	22,647,207	60,000,000
Coke made, tons.....	2,358,499	3,528,000
Lumber cut, feet.....	773,583,000	*1,473,000,000
Mineral products, value.....	\$47,055,384	\$100,000,000
Factory Activities—		
Capital.....	\$49,103,138	*\$150,923,000
Value of products.....	\$67,007,000	*\$161,960,000
Farm Lands—		
Value of lands.....	\$134,296,000	\$205,610,000
Value of buildings.....	\$34,027,000	\$56,848,000
Grain products, bushels.....	26,521,000	31,565,000
National Banks—		
Resources.....	\$25,242,824	\$72,001,259
Capital.....	\$3,849,660	\$9,092,470
Individual deposits.....	\$15,548,823	\$44,091,084
Other banks, deposits.....	\$21,317,823	*\$49,320,770
Property, true value.....	\$659,652,551	\$1,160,000,000
Railroad mileage.....	2,485	3,680

*Figures of 1909.

The main and branch lines of the Baltimore & Ohio Railroad cover the greater part of West Virginia and carry the products of the manufacturer and farmer to the leading markets of this country and foreign countries.

The Baltimore & Ohio Railroad is deeply interested in every phase of the State's development, and exercises, not only in this State, but over the entire system, a policy of active encouragement to new and established industries.

The Baltimore & Ohio Railroad, through its Industrial Department, will be pleased to hear from those desiring information as to the special opportunities for investment, manufacture or farming, and will co-operate with them to the fullest extent.

Baltimore & Ohio Railroad

W. W. Wood, Industrial Agent

Baltimore, Md.

Exceptional Site for Lime Plant

**Raw Materials
In Abundance**

**Markets Extensive
Always Expanding**

**Shipping Facilities
Exceptionally Fine**

There is an always increasing demand for lime products along the Clinchfield Route.

Especially is this true in regard to agricultural lime, as farmers are using it for improving their lands in much greater quantities than ever before. Hydrated lime is also growing in use for building and other purposes.

One especially fine location for a lime plant is available now. The site is directly on the main line of the Clinchfield, between Kingsport and Johnson City, Tenn.

The limestone in this section is exceptionally fine and can be purchased at a very low price.

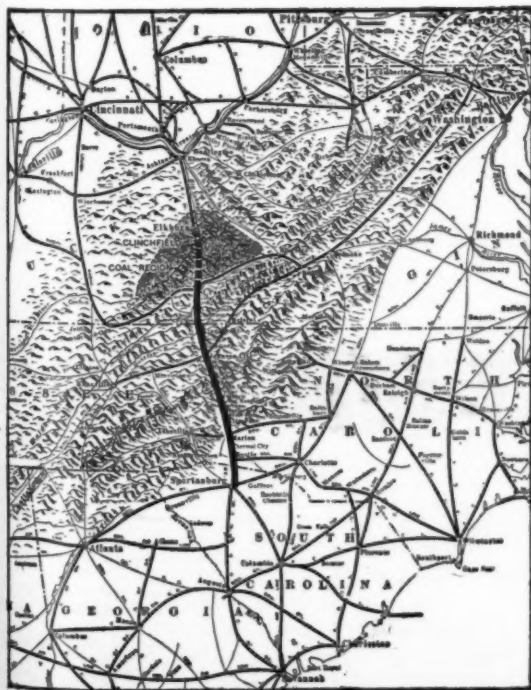
Not only are markets available in the new territory contiguous to the Clinchfield, but also along the Southern Railway, the Seaboard Air Line and the Norfolk & Western Railway, all of which are crossed by the Clinchfield.

Consequently, there exists at this point the following requirements for a lime plant that will prove both successful and profitable:

Raw materials in abundance and at low prices.

Markets extensive and always expanding.

Shipping facilities excellent.



Full details concerning the opportunity for the establishment of a lime plant at this point will be furnished to those interested.

Carolina, Clinchfield & Ohio Rwy.

"THE ROAD OF OPPORTUNITY"

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V.-P. and Traffic Manager

R. F. Brewer,
Industrial Agent

Johnson City, Tenn.

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Abrasive Material Co., Philadelphia, Pa.
Carborundum Co., Niagara Falls, N. Y.
Norton Co., Worcester, Mass.
Vitrified Wheel Co., Westfield, Mass.

Accountants.

Baltimore Audit Co., Baltimore, Md.
Cruselle Audit Co., Atlanta, Ga.
Interstate Audit Co., Washington, D. C.
Neville, Chas., Savannah, Ga.
South Eastern Audit Co., Columbia, S. C.
Suffern & Son, Birmingham, Ala.

Adding Machines.

Adder Machine Co., Wilkes-Barre, Pa.
Burrighs Adding Machine Co., Detroit, Mich.

Agents. (Manufacturers.)

Allen, Herbert F. L., Washington, D. C.
Hammond-Ryd Co., The, Birmingham, Ala.
Southern Steel Products Co., Inc., Richmond, Va.

Agricultural Implements.

Appomattox Iron Works, Petersburg, Va.
Myers & Bro., F. E., Ashland, O.

Air Compressors. (Stationary and Portable.)

Allen, Herbert F. L., Washington, D. C.
American Air Compressor Wks., New York, N. Y.
American Compressor & Pump Co., Baltimore, Md.
Blaisdell Machinery Co., Bradford, Pa.
Chicago Pneumatic Tool Co., Chicago, Ill.
De La Vergne Machine Co., New York, N. Y.
General Electric Co., Schenectady, N. Y.
Ingersoll-Rand Co., New York, N. Y.
McKinnon-Terry Drill Co., New York, N. Y.
Union Steam Pump Co., Battle Creek, Mich.

Air Motors.

Duke Engine Co., Grand Haven, Mich.
Ingersoll-Rand Co., New York, N. Y.

Aluminum Products. (Bars, Sheets, Tubes, etc.)

Aluminum Company of America, Pittsburgh, Pa.

Aluminum Wheels.

Norton Company, Worcester, Mass.

Anti-Friction Metals.

Bailey Leiby Co., Charleston, S. C.
Dodge Manufacturing Co., Mishawaka, Ind.
Phosphor-Bronze Smelting Co., Phila., Pa.
Virginia Railway Supply Co., Norfolk, Va.

Architects.

Cottrill & Cottrill, Greenwood, S. C.
Koch, L. A. H., Wilmington, N. C.
Lockwood, Greene & Co., Boston, Mass.
McLaughlin & Johnson, Lynchburg, Va.
Milburn, Helser & Co., Washington, D. C.
Nolan, Edward A., Tampa, Fla.
Northrup, Willard C., The, Cincinnati, O.
Pettit & Cave, Danville, Va.
Shand & Lafaye, Columbia, S. C.
Sirmine, J. E., Greenville, S. C.
Solde, Edward, Charlotte, N. C.

Architects' Supplies.

Kneffel & Esser, Hoboken, N. J.
Starrett Co., L. S., Attol, Mass.

Architectural Iron and Sheet Metal Work.

Follos Iron & Wire Works, J. E., Detroit, Mich.
Chesapeake Iron Works, Baltimore, Md.
Des Moines Bridge & Iron Co., Des Moines, Ia.
Schreiber & Sons Co., The, Cincinnati, O.
Sneed Architectural Iron Works, Louisville, Ky.

Art Glass.

Binswanger & Co., Memphis, Tenn.

Art Glass and Prisms. (Set in Zinc and Copper.)

Spess Art Glass Co., G. A., St. Louis, Mo.

Asbestos.

Carolina Portland Cement Co., Charleston, S. C.
Johns Manville Co., H. W., New York, N. Y.
Southern Pipe Covering Co., Inc., Richmond, Va.

Asphalt.

Armstrong Mfg. Co., Richmond, Va.
Barber Asphalt Paving Co., Philadelphia, Pa.
Gulf Refining Co., Pittsburg, Pa.
Texas Co., The, New York, N. Y.

Asphalt Roofing and Siding. (Bird Sand and Chipped Slate Surfaced.)

Bermingham & Seaman Co., Chicago, Ill.

Automatic Buckets.

Browning Engineering Co., Cleveland, O.

Automobiles.

Interstate Automobile Co., Muncie, Ind.
Jeffery Co., Thos. B., Kenosha, Wis.

Axles. (See Car Wheels, Axles and Trucks.)**Ball-Bearing Metal. (See Anti-Friction Metal.)****Badges. (Hat and Breast, Electric and Steam Road, Police and Fire Dept.)**

American Railway Supply Co., New York, N. Y.

Bakers' Machinery.

Lynn Superior Co., The, Cincinnati, O.

Bankers and Brokers.

Baltimore Trust Co., Baltimore, Md.
Delaware Trust Co., Wilmington, Del.
Florida Trust Co., Jacksonville, Fla.
Glenn, W. S., Spartanburg, S. C.
Guaranty State Bank & Trust Co., Dallas, Tex.
Halsey & Co., N. W., New York, N. Y.
Lisman & Co., F. J., New York, N. Y.
Mercantile Trust & Deposit Co., Baltimore, Md.
Nuveen & Co., John, Chicago, Ill.
Savannah Bank & Trust Co., Savannah, Ga.
Short & Son, John C., New York, N. Y.
Southern States Development Co., New York, N. Y.
Wimer, Richardson & Co., San Antonio, Tex.

Banks.

First National Bank, Baltimore, Md.
First Nat'l Bank of Key West, Key West, Fla.
First National Bank, Richmond, Va.
Guaranty State Bank & Trust Co., Dallas, Tex.
Merchants National Bank, Baltimore, Md.
National Exchange Bank, Baltimore, Md.
Savannah Bank & Trust Co., Savannah, Ga.

Bank and Office Railings and Grilles. (Iron.)

Bolles Iron & Wire Works, J. E., Detroit, Mich.
Buckeye Wire & Iron Works Co., Columbus, O.
Chattanooga Iron & Wire Wks., Chattanooga, Tenn.
Chesapeake Iron Works, Baltimore, Md.
Dow Wire Works, Louisville, Ky.
Dufur & Co., Baltimore, Md.
Dufur, Baggett & Co., Baltimore, Md.
Eatey Wire Works Co., New York, N. Y.
Jones & Co., L. E., Baltimore, Md.
Meyers Mfg. Co., F. J., Hamilton, O.
Ohio Elevator & Machine Co., The, Columbus, O.

Bank Fixtures.

Quincy Show Case Works, Quincy, Ill.
Ruse & Thompson, Baltimore, Md.

Bar Iron. (Refined and Galvanized.)

Carnegie Steel Co., Pittsburgh, Pa.
Nicolet Plate Washer Co., Philadelphia, Pa.

Bars, Wire, Wire Fabric, etc. (Steel for Concrete-Steel Construction.)

American Steel & Wire Co., Chicago, Ill.
American System of Reinforcing, Chicago, Ill.
Cincinnati Rubber & Steel Co., Cincinnati, O.
Clinton Wire Cloth Co., Clinton, Mass.
Concrete-Steel Co., The, New York, N. Y.
Concrete Steel Engineering Co., New York, N. Y.
Franklin Steel Co., Franklin, Pa.
Hoffman & Co., R. C., Baltimore, Md.
Jones & Laughlin Steel Co., Pittsburgh, Pa.
Southern Steel Products Co., Inc., Richmond, Va.
Wright & Co., W. N., New York, N. Y.

Bearings. (Ball.)

Hyatt Roller Bearing Co., Newark, N. J.
Standard Roller Bearing Co., Philadelphia, Pa.

Bearings. (Brass Journal.)

Gilbert & Sons Brass Fdry. Co., A., St. Louis, Mo.

Bearings. (Oilless.)

North Amer. Metaline Co., Long Island City, N. Y.

Bearings. (Roller.)

Hyatt Roller Bearing Co., Newark, N. J.
Standard Roller Bearing Co., Philadelphia, Pa.

Bells. (Call.)

Holtzer-Cabot Electric Co., Boston, Mass.

Bells and Gongs.

National Tube Co., Pittsburgh, Pa.
Western Electric Co., New York, N. Y.

Belting. (Leather, Canvas, Rubber.)

American Supply Co., Providence, R. I.
Bailey Leiby Co., Charleston, S. C.
Baltimore Belting Co., Baltimore, Md.
Cameron & Barkley Co., Charleston, S. C.
Chesapeake Belting Co., Baltimore, Md.
Diamond Rubber Co., Akron, O.
Dick, E. D., R. J., Passaic, N. J.
Druid Oak Belting Co., Inc., The, Baltimore, Md.
Gandy Belting Co., Baltimore, Md.
N. J. Car Spring & Rubber Co., Jersey City, N. J.
Rosedale-Rodaway B. & H. Co., Newark, N. J.
Williams & Sons, L. B., Dover, N. H.

Belting. (Chain.)

Bartlett & Snow Co., C. O., Cleveland, O.
Caldwell & Sons Co., H. W., Chicago, Ill.
Jeffrey Mfg. Co., Columbus, O.
Link Belt Co., Nicetown (Philadelphia), Pa.
Morse Chain Co., Hance, N. Y.

Belt Conveyors.

Jeffrey Mfg. Co., Columbus, O.
Robins Conveying Belt Co., New York, N. Y.

Belt Dressing.

Diamond Rubber Co., Akron, O.
Gandy Belting Co., Baltimore, Md.

Belt Fasteners.

Crescent Belt Fastener Co., New York, N. Y.

Bicarbonate Soda. (Sap Stain Lumber Dip.)

Church & Dwight Co., New York, N. Y.

Blackboards. (Slate.)

East Bangor Con. Slate Co., The, East Bangor, Pa.
Hower, J. K., Stratford, Pa.
Johnson, E. J., New York, N. Y.

Block Tackle. (For Wire or Manila Rope.)

Patterson Co., W. W., Pittsburg, Pa.

Blowers. (Soot.)

Bayer Steam Soot Blower Co., St. Louis, Mo.

Blowers and Exhaust Fans.

American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Clark Co., Windsor Locks, Conn.
De Laval Steam Turbine Co., Trenton, N. J.
Garden City Fan Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Green Fuel Economizer Co., Matamoras, N. Y.
Raymond Bros. Impact Pulv. Co., Chicago, Ill.
Savannah Blow Pipe Co., Savannah, Ga.
Skinner Bros., St. Louis, Mo.
Standard Blower & Metal Mfg. Co., Atlanta, Ga.
Sturtevant Co., B. F., Hyde Park, Mass.

Blueprint Apparatus.

Kneffel & Esser, Hoboken, N. J.

Boilers.

Abendroth & Root Mfg. Co., Newburgh, N. Y.
Ames Iron Works, Owego, N. Y.
Babcock & Wilcox Co., New York, N. Y.
Brownell Co., Dayton, O.
Cameron & Barkley Co., Charleston, S. C.
Casey-Hedges Co., Chattanooga, Tenn.
Chattanooga Roller & Tank Co., Chattanooga, Tenn.
Chicago House Wrecking Co., Chicago, Ill.
Cole Mfg. Co., R. D., Newman, Ga.
Casper Co., C. & G., Mt. Vernon, O.
Gibbs Machinery Co., Columbia, S. C.
Hartley Boiler Works, Montgomery, Ala.
Heine Safety Boiler Co., St. Louis, Mo.
Keck Co., E., Williamsport, Pa.
Leakout Boiler & Mfg. Co., Chattanooga, Tenn.
Lombard Iron Works, Augusta, Ga.
Mecklenburg Iron Works, Charlotte, N. C.
Murray Iron Works Co., Burlington, Ia.
Petroleum Iron Works Co., Sharon, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Price Machinery Co., S. M., Norfolk, Va.
Schiefel & Sons Co., J. S., Macon, Ga.
Smith-Courtney Co., Richmond, Va.
Southern Engine & Boiler Works, Jackson, Tenn.
Union Iron Works Co., Selma, Ala.
Valk & Murdoch Iron Works, Charleston, S. C.
Vogt Machine Co., Henry, Louisville, Ky.
Walsh & Weldner Boiler Co., Chattanooga, Tenn.

Boiler Setting.

Harbison-Walker Refractories Co., Pittsburg, Pa.

Boiler Tubes. (See Tubes, Boiler.)

Bolts, Nuts, Rivets, Studs and Washers.
Lebanon Valley Iron & Steel Co., Lebanon, Pa.
Milton Mfg. Co., Milton, Pa.
Newton Plate Washer Co., Philadelphia, Pa.
Republic Iron & Steel Co., Youngstown, O.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

Bonded Warehouse. (For Manufacturers.)

Candler Warehouse Co., Atlanta, Ga.

Bonds. (Surety, etc.)

Fidelity & Deposit Co., Baltimore, Md.

Boring. (Cylinder.)

Strickland Machine Co., Richmond, Va.

Bottling Outfits.

Vilmer Mfg. Co., Milwaukee, Wis.

Box Shooks.

Naylor & Co., S. E., Gulfport, Miss.

Brass Goods.

Bailey-Leiby Co., Charleston, S. C.
Buckeye Iron & Brass Works, Dayton, O.
Powell Co., Wm., Cincinnati, O.

Brazings. (Cast Iron.)

Richmond Machine Works, Inc., Richmond, Va.
Strickland Machine Co., Richmond, Va.

Brewers' Machinery.

Vilmer Mfg. Co., Milwaukee, Wis.

Brick. (Building.)

Am. Enamelled Brick & Tile Co., New York, N. Y.
Brookhaven Pressed Brick & Mfg. Co., Brookhaven, Miss.
Carolina Portland Cement Co., Charleston, S. C.
Hood, B. Midlin, Atlanta, Ga.
Hydraulic Press Brick Co., St. Louis, Mo.
Deeney Brick & Tile Co., Millidgeville, Ga.
Shibley-Menge Brick & Coal Co., Birmingham, Ala.
Southern Clay Mfg. Co., Chattanooga, Tenn.

Brick. (Blast Furnace, Coke Oven.)

Ashland Fire Brick Co., Ashland, Ky.

Hood, B. Midlin, Atlanta, Ga.

Southern Clay Mfg. Co., Chattanooga, Tenn.

Brick. (Enamelled.)

Amer. Enam. Brick & Tile Co., New York, N. Y.

Brick. (Fire Clay.)

Ashland Fire Brick Co., Ashland, Ky.
Brookhaven Pressed Brick & Mfg. Co., Brookhaven, Miss.

Harbison-Walker Refractories Co., Pittsburg, Pa.

Killian Fire Brick Works, Killian, S. C.

Louisville Fire Brick Works, Highland Park, Ky.

Pomona Terra-Cotta Co., Pomona, N. C.

Southern Clay Mfg. Co., Chattanooga, Tenn.

Stevens' Sons Co., H., Macon, Ga.

Taylor Sons Co., Chas., Cincinnati, O.

Union Mining Co., Mt. Savage, Md.

Brick. (Magnesia.)

Harbison-Walker Refractories Co., Pittsburg, Pa.

Brick. (Paving.)

Carlyle Paving Brick Co., Portsmouth, O.
Copeland-Ingalls Shale Brick Co., Birmingham, Ala.

Southern Clay Mfg. Co., Chattanooga, Tenn.

Brick. (Silica.)

Harbison-Walker Refractories Co., Pittsburg, Pa.

Brick Machinery. (Sand Lime.) (See Sand-Lime Brick Machinery.)**Brick and Clayworking Machinery and Supplies.**

American Clay Mchry. Co., The, Bucyrus, O.
Carnell, George, Philadelphia, Pa.
Fernholtz Brick Machinery Co., St. Louis, Mo.
Freese & Co., E. M., Galion, O.
Gibbs Machinery Co., Columbia, S. C.
Scott-Madden Iron Works, Keokuk, Iowa.
Steele & Sons, J. C., Statesville, N. C.
Tappin-Rice-Clerkin Co., Akron, O.

Bridges. (Concrete.)

Concrete Steel Engineering Co., New York, N. Y.
Raymond Concrete Pile Co., New York, N. Y.

Bridges. (Rolling Lift.)

Scherzer Rolling Lift Bridge Co., Chicago, Ill.

Bridges.

American Bridge Co. of New York, New York, N. Y.
Baltimore Bridge Co., Baltimore, Md.
Belmont Iron Works, Inc., Philadelphia, Pa.
Chicago Bridge & Iron Wks., Chicago, Ill.
Des Moines Bridge & Iron Co., Des Moines, Ia.
Farris Bridge Co., Pittsburg, Pa.
Missouri Val. B'dge & Iron Co., Leavenworth, Kan.
Owego Bridge Co., Owego, N. Y.
Ritter-Conley Mfg. Co., Pittsburg, Pa.
Roumoke Bridge Co., Roumoke, Va.
Scherzer Rolling Lift Bridge Co., Chicago, Ill.
Vincennes Bridge Co., Vincennes, Ind.
Virginia Bridge & Iron Co., Roumoke, Va.
York Bridge Co., York, Pa.

Bridge and Structural Iron Paints.

Carolina Portland Cement Co., Charleston, S. C.
Chattanooga Paint Co., Chattanooga, Tenn.
Dixon Crucible Co., Joseph, Jersey City, N. J.
Maryland Steel Co., Sparrows Point, Md.
Standard Paint Co., New York, N. Y.

Brimstone.

Union Sulphur Co., New York, N. Y.

Buckets. (Excavators.)

Browning Mfg. Co., Mansfield, O.
Hayward Co., New York, N. Y.
Moulton Mch. Co., Chicago, Ill.
Owen Bucket Co., Cleveland, O.
Williams Co., The G. H., Cleveland, O.

Buckets. (Ore, etc.)

Brown Hoisting Mch. Co., Cleveland, O.
Browning Mfg. Co., Mansfield, O.
Caldwell & Son Co., H. W., Chicago, Ill.
Dodge Manufacturing Co., Mishawaka, Ind.
Hayward Co., New York, N. Y.
Link-Belt Co., Nicetown (Philadelphia), Pa.
Owen Bucket Co., Cleveland, O.
Williams Co., The G. H., Cleveland, O.

Buhr Stones.

Starr Co., B. F., Baltimore, Md.

Builders and Contractors.

Falls City Construction Co., Louisville, Ky.
Farris Bridge Co., Pittsburg, Pa.
Raymond Concrete Pile Co., New York, N. Y.
Selden-Breck Construction Co., St. Louis, Mo.
Upton-Smoot Construction Co., Washington, D. C.
White & Co., J. G., New York, N. Y.

Buildings. (Financed.)

Falls City Construction Co., Louisville, Ky.

Building Supplies.

Armstrong Mfg. Co., Richmond, Va.
Birch, Chas. & R. O., Atlanta, Ga.
Carolina Portland Cement Co., Charleston, S. C.
Chicago House Wrecking Co., Chicago, Ill.
Southeastern Lime & Cement Co., Charleston, S. C.
Southern Building Material Co., Norfolk, Va.
Southern Steel Products Co., Inc., Richmond, Va.

Burlap—Inserted Roofing and Siding. (Flexible Cement.)

Bermingham & Seaman Co., Chicago, Ill.

Burners. (Oil.) (See Fuel Oil Equipments.)**Bushings. (Oilless, for Loose Pullers.)**

North Amer. Metaline Co., Long Island City, N. Y.

Cables.

American Steel & Wire Co., Chicago, Ill.
Broderick & Bascom Rope Co., St. Louis, Mo.
Roebbing's Sons Co., John A., Trenton, N. J.
Williamsport Wire Rope Co., Williamsport, Pa.

Cableways. (Overhead Suspension.)

Broderick & Bascom Rope Co., St. Louis, Mo.
Flory Mfg. Co., S., Bangor, Pa.
Lidgerwood Mfg. Co., New York, N. Y.
Mead-Morrison Mfg. Co., Cambridgeport, Mass.
Roebbing's Sons Co., John A., Trenton, N. J.

Can and Box Making Machinery. (Tin.)

Bliss Co., E. W., Brooklyn, N. Y.

Cans.

New Orleans Rfg. & Metal Wks., New Orleans, La.
Southern Can Co., Baltimore, Md.
United States Can Co., Cincinnati, O.

Canning Machinery and Supplies.

Canners & Packers' Supply Co., Baltimore, Md.
Robins & Co., A. K., Baltimore, Md.
Sinclair-Scott Co., Baltimore, Md.
Sprague Canning Machinery Co., Chicago, Ill.

Carborundum Paper and Cloth.

Carborundum Co., Niagara Falls, N. Y.

Card Clothing.

American Supply Co., Providence, R. I.

Cars. (Dump, Industrial Logging and Mine)

Austin Mfg. Co., Chicago, Ill.
Baldwin Equipment & Supply Co., Chicago, Ill.
Chase Fdry. & Mfg. Co., Columbus, O.
Electric Wheel Co., Quincy, Ill.
Georgia Car & Locomotive Co., Atlanta, Ga.
Hunt Co., C. W., West New Brighton, N. Y.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Miles Co., The, Cincinnati, O.
Oliver Mfg. Co., Wm. J., Knoxville, Tenn.
Raleigh Iron Works Co., Raleigh, N. C.
Union Iron Works, Selma, Ala.

Cars. (Passenger and Freight.) (See Railroad Equipment and Supplies.)**Car Couplers and Knuckles.**

Safety Car H'tg & Lght'g Co., New York, N. Y.

Car Lighting and Heating.

Safety Car H'tg & Lght'g Co., New York, N. Y.

Car Wheels, Axles and Trucks.

Carnegie Steel Co., Pittsburgh, Pa.
Oliver Mfg. Co., Wm. J., Knoxville, Tenn.
Union Iron Works, Selma, Ala.

Casters.

Clark Co., Geo. P., Windsor Locks, Conn.

- Coal Cutters.**
Ingersoll-Rand Co., New York, N. Y.
Jeffrey Mfg. Co., Columbus, O.
McKernan-Terry Drill Co., New York, N. Y.
- Coal Handling Machinery.**
Bartlett & Snow Co., C. O., Cleveland, O.
Brown Hoisting Mch. Co., Cleveland, O.
Hayward Co., New York, N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Nictown (Philadelphia), Pa.
Mead-Morrison Mfg. Co., Cambridgeport, Mass.
Robins Conveying Belt Co., New York, N. Y.
Williams Co., The G. H., Cleveland, O.
- Coal Tar and By-Products.**
Barrett Mfg. Co., Philadelphia, Pa.
Carolina Portland Cement Co., Charleston, S. C.
- Coke.**
Alabama Coal & Iron Co., Birmingham, Ala.
Flat Top Fuel Co., Bluefield, W. Va.
Hickman, Williams & Co., Chicago, Ill.
Boggs, Brown & Co., Cincinnati, O.
Tennessee Coal, Iron & R. R. Co., B'm'gh'm, Ala.
Yolande Coal & Coke Co., Birmingham, Ala.
- Collapsible Steel Forms. (For Concrete Work.)**
Concrete Form & Engine Co., Detroit, Mich.
- Concrete Construction. (Steel Reinforcement.)**
American Steel & Wire Co., Chicago, Ill.
American System of Reinforcing, Chicago, Ill.
Brown Hoisting Machinery Co., Cleveland, O.
Clinton Wire Cloth Co., Clinton, Mass.
Concrete Steel Co., The, New York, N. Y.
Concrete Steel Engineering Co., New York, N. Y.
Foster-Creighton-Gould Co., Nashville, Tenn.
Jeffrey Mfg. Co., Columbus, O.
Raymond Bros. Impact Pulv. Co., New York, N. Y.
Reid Mfg. Co., Milwaukee, Wis.
Seaman, Thomas, Danville, Va.
Wight & Co., W. N., New York, N. Y.
- Concrete Curb Protection. (Steel.)**
Steel Protected Concrete Co., Philadelphia, Pa.
- Concrete Dams.**
Amburns Hydraulic Const. Co., Boston, Mass.
- Concrete Floor Dressing. (Waterproof.)**
Glidden Varnish Co., Cleveland, O.
- Concrete Forms. (Metal.)**
Belcher Mfg. Co., Milwaukee, Wis.
- Concrete Forms. (Steel Collapsible.)**
Concrete Form & Engine Co., Detroit, Mich.
- Concrete Mixers.**
Carolina Portland Cement Co., Charleston, S. C.
Eureka Machine Co., Lansing, Mich.
Jeffrey Mfg. Co., Columbus, O.
Smith Co., T. L., Chicago, Ill.
Standard Scale & Supply Co., Pittsburg, Pa.
- Concrete Reinforcing Bars.**
Carnegie Steel Co., Pittsburg, Pa.
Concrete Steel Co., The, New York, N. Y.
Concrete Steel Engineering Co., New York, N. Y.
Franklin Steel Co., Franklin, Pa.
- Condensers.**
Alberger Condenser Co., New York, N. Y.
Dean Bros. Steam Pump Wks., Indianapolis, Ind.
Westinghouse Machine Co., Pittsburg, Pa.
Wheeler Condenser & Eng. Co., New York, N. Y.
York Mfg. Co., York, Pa.
- Conductor Pipe.**
Edwards Mfg. Co., Cincinnati, O.
Honey & Co., C. G., Pittsburg, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.
- Contractors' Machinery and Supplies. [See Hoisting Machinery.]**
Allentown Equip. Co., Allentown, Pa.
American Locomotive Co., New York, N. Y.
Austin Mfg. Co., Chicago, Ill.
Case Threshing Mch. Co., J. I., Racine, Wis.
Clyde Iron Works, Duluth, Minn.
Contractors' Plant Mfg. Co., Ltd., Buffalo, N. Y.
Exeter Machine Works, Pittsburg, Pa.
Flory Mfg. Co., S., Bangor, Pa.
Hilde Bros. & Co., New York, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Linton, W. J., New York, N. Y.
Malles Co., The, Cincinnati, O.
Marine Metal & Supply Co., New York, N. Y.
Mayland Equipment & Supply Co., Baltimore, Md.
Mead-Morrison Mfg. Co., Cambridgeport, Mass.
Monaghan Mch. Co., Chicago, Ill.
Oliver Mfg. Co., Wm. J., Knoxville, Tenn.
Owen Bucket Co., Cleveland, O.
Pickett, H. W., Philadelphia, Pa.
Robins Conveying Belt Co., New York, N. Y.
Williamson Bros. Co., Philadelphia, Pa.
- Conveying Machinery.**
Bartlett & Snow Co., C. O., Cleveland, O.
Brown Hoisting Mch. Co., Cleveland, O.
Caldwell & Son Co., H. W., Chicago, Ill.
Dodge Manufacturing Co., Mishawaka, Ind.
Flory Mfg. Co., S., Bangor, Pa.
Hayward Co., New York, N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
Jeffrey Mfg. Co., Columbus, O.
Lidgerwood Mfg. Co., New York, N. Y.
Link-Belt Co., Nictown (Philadelphia), Pa.
Mead-Morrison Mfg. Co., Cambridgeport, Mass.
McLanahan-Stone Mach. Co., Hollidaysburg, Pa.
Robins Conveying Belt Co., New York, N. Y.
Symons Bros., Milwaukee, Wis.
- Cooling Towers.**
Alberger Condenser Co., New York, N. Y.
Wheeler Condenser & Eng. Co., New York, N. Y.
- Cordage.**
American Mfg. Co., New York, N. Y.
Broderick & Bacon Rope Co., St. Louis, Mo.
Columbian Rope Co., Auburn, N. Y.
Plymouth Cordage Co., North Plymouth, Mass.
Turner Co., J. Spencer, New York, N. Y.
Watlock Cordage Co., New York, N. Y.
- Cordage Machinery.**
Bartlett-Dawes Machine Co., Boston, Mass.
- Core Sand.**
Clinch Mountain Flint & Spar Co., Bristol, Tenn.
- Corn-Mill Machinery.**
Kendrick & Marmon Co., Indianapolis, Ind.
Raymond Bros. Impact Pulv. Co., Chicago, Ill.
Rarr Co., B. F., Baltimore, Md.
Wald Co., Chambersburg, Pa.
- Cotton Duck.**
Turner Co., J. Spencer, New York, N. Y.
- Cotton Oil and Products.**
American Cotton Oil Co., New York, N. Y.
- Cotton Yarns. (Commission Merchants.)**
Paulsen, Linkroum & Co., New York, N. Y.
- Cotton-Gin Machinery.**
Carver Cotton Gin Co., East Bridgewater, Mass.
Continental Gin Co., Birmingham, Ala.
Gibbs Machinery Co., Columbia, S. C.
Van Winkle Gin & Machine Co., Atlanta, Ga.
- Cotton-Mill Machinery.**
American Mach. & Mfg. Co., Charlotte, N. C.
American Supply Co., Providence, R. I.
Draper Co., Hopedale, Mass.
Klison Machine Shop, Lowell, Mass.
Lowell Machine Shop, Lowell, Mass.
Mason Machine Works, Taunton, Mass.
Saco-Pettie Co., Newton Upper Falls, Mass.
Whitlin Machine Works, Whitinsville, Mass.
Whitinsville Spinning Ring Co., Whitinsville, Mass.
- Cotton-Mill Supplies.**
American Supply Co., Providence, R. I.
Whitinsville Spinning Ring Co., Whitinsville, Mass.
- Cottonseed-Oil Machinery.**
Buckeye Iron & Brass Works, Dayton, O.
Burruss Engineering Co., Atlanta, Ga.
Callahan Co., W. P., The, Dayton, O.
Cardwell Machine Co., Richmond, Va.
Carver Cotton Gin Co., East Bridgewater, Mass.
Continental Gin Co., Birmingham, Ala.
French Oil Mill Mch. Co., Piqua, O.
Raymond Bros. Impact Pulv. Co., Chicago, Ill.
Van Winkle Gin & Machine Co., Atlanta, Ga.
- Couplings.**
American Spiral Pipe Works, Chicago, Ill.
Caldwell Co., Inc., W. E., Louisville, Ky.
Dodge Manufacturing Co., Mishawaka, Ind.
Goldens Foundry & Machine Co., Columbus, Ga.
Sinclair-Scott Co., Baltimore, Md.
Wood's Sons, T. B., Chambersburg, Pa.
- Couplings. (Car.)**
Weimer Chain & Iron Co., Lebanon, Pa.
- Couplings. (Hose, Air, Gas, Steam and Water.)**
National Tube Co., Pittsburg, Pa.
- Covering. (Pipe, Boiler, etc.)**
Carolina Portland Cement Co., Charleston, S. C.
John-Manville Co., H. W., New York, N. Y.
Southern Pipe Covering Co., Inc., Richmond, Va.
- Cranes. (Locomotive.)**
Brown Hoisting Machinery Co., Cleveland, O.
Browning Engineering Co., Cleveland, O.
Exeter Machine Works, Pittsburg, Pa.
- Cranes. (Travelling, Hand, Power, Hydraulic.)**
Brown Hoisting Machinery Co., Cleveland, O.
Hayward Co., New York, N. Y.
Lane Mfg. Co., Montpelier, Vt.
Northern Engineering Works, Detroit, Mich.
Spindel, J. G., Reading, Pa.
- Crayons.**
Lowell Crayon Co., Lowell, Mass.
- Creosote.**
Carolina Portland Cement Co., Charleston, S. C.
- Creosote Oil.**
Atlantic Turpentine Co., Savannah, Ga.
- Creosoted Wood Block. (Contractors for Laying.)**
Creosoted Wood Block Paving Co., Gulfport, Miss.
- Creosoting Works.**
Gulfport Creosoting Co., Gulfport, Miss.
Internat'l Creosot'g & Cons. Co., Galveston, Tex.
National Lumber & Creos. Co., Texarkana, Ark.
Southern Creosoting Co., Ltd., Silsbee, La.
Southern Wood Preserving Co., Atlanta, Ga.
- Crossarms and Pins.**
Internat'l Creosot'g & Cons. Co., Galveston, Tex.
Southern Creosoting Co., Ltd., Silsbee, La.
Western Electric Co., New York, N. Y.
- Crossings. [See Railroad Frogs and Switches.]**
- Crosstie Machine.**
Standard Cross Tie Mch. Co., New Orleans, La.
- Crossties.**
Internat'l Creosot'g & Cons. Co., Galveston, Tex.
National Lumber & Creos. Co., Texarkana, Ark.
Naylor & Co., S. E., Gulfport, Miss.
Southern Creosoting Co., Ltd., Silsbee, La.
- Crossties. (Steel.)**
Carnegie Steel Co., Pittsburg, Pa.
- Crushers. (Corn and Cob.)**
Gardner Crusher Co., New York, N. Y.
Jeffrey Mfg. Co., Columbus, O.
Raymond Bros. Impact Pulv. Co., Chicago, Ill.
Williams Pat. Crusher & Pulv. Co., Chicago, Ill.
- Crushers. (Rock.)**
Austin Mfg. Co., Chicago, Ill.
Case Threshing Mch. Co., J. I., Racine, Wis.
Gardner Crusher Co., New York, N. Y.
Power & Mining Machinery Co., Cudahy, Wis.
Raymond Bros. Impact Pulv. Co., Chicago, Ill.
Smith Co., T. L., Chicago, Ill.
Symons Bros., Milwaukee, Wis.
Universal Road Mch. Co., Kingston, N. Y.
- Crushing and Pulverizing Machinery.**
Aising Engineering Co., J. R., New York, N. Y.
Austin Mfg. Co., Chicago, Ill.
Bartlett & Snow Co., C. O., Cleveland, O.
Gardner Crusher Co., New York, N. Y.
Jeffrey Mfg. Co., Columbus, O.
McLanahan-Stone Mach. Co., Hollidaysburg, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Pratt Engineering & Mach. Co., Atlanta, Ga.
Raymond Bros. Impact Pulv. Co., Chicago, Ill.
Symons Bros., Milwaukee, Wis.
Walker & Elliott, Wilmington, Del.
Williams Pat. Crusher & Pulv. Co., Chicago, Ill.
- Culverts. (Corrugated Metal.)**
American Rolling Mill Co., Middletown, O.
Canton Culvert Co., The, Canton, O.
Dixie Culvert & Metal Co., Atlanta, Ga.
Kentucky Culvert Mfg. Co., Buechel, Ky.
New Orleans Mfg. & Metal Wks., New Orleans, La.
North Carolina Metal Cyl. Co., Greensboro, N. C.
Roanoke Bridge Co., Roanoke, Va.
Tennessee Metal Culvert Co., Nashville, Tenn.
Virginia Metal Culvert Co., Roanoke, Va.
- Culverts. (Vitrified Pipe.)**
Stevens Sons Co., H., Macon, Ga.
- Cupola Furnaces.**
Northern Engineering Works, Detroit, Mich.
Paxson Co., J. W., Philadelphia, Pa.
Petroleum Iron Works Co., Sharon, Pa.
- Cuts. (Half-tone, Line, etc.)**
Baltimore Maryland Engr. Co., Baltimore, Md.
- Cutter Heads. (Woodworking.)**
Shimer & Sons, Samuel J., Milton, Pa.
- Cutter Grinders.**
Abrasive Material Co., Philadelphia, Pa.
Vitrified Wheel Co., Westfield, Mass.
- Dams. (Reinforced Concrete.)**
Amburns Hydraulic Const. Co., Boston, Mass.
- Derricks and Derrick Fittings.**
American Hoist & Derrick Co., St. Paul, Minn.
Monaghan Machine Co., Chicago, Ill.
National Hoisting Engine Co., Harrison, N. J.
- Designers and Illustrators. (Printed Matter.)**
Baltimore Maryland Engr. Co., Baltimore, Md.
- Die Makers. (Special.)**
Black & Decker Mfg. Co., Baltimore, Md.
- Ditching Machinery.**
American Hoist & Derrick Co., St. Paul, Minn.
American Locomotive Co., New York, N. Y.
American Steel Dredge Co., Ft. Wayne, Ind.
Browning Mfg. Co., Mansfield, O.
Fairbanks Steam Shovel Co., Marion, O.
Hayward Co., The, New York, N. Y.
Marion Steam Shovel Co., Marion, O.
Monaghan Machine Co., Chicago, Ill.
Owen Bucket Co., Cleveland, O.
Williams Co., The G. H., Cleveland, O.
- Docks. (Concrete.)**
Raymond Concrete Pile Co., New York, N. Y.
Carolina Portland Cement Co., Charleston, S. C.
- Doors. (Hurch Veneered.)**
Massee & Felton Lumber Co., Macon, Ga.
- Doors. (Steel Rolling.)**
Kinneer Mfg. Co., Columbus, O.
- Doors. (Tin Clad.)**
Victor Mfg. Co., Newburyport, Mass.
- Doors, Partitions. (Metallic.)**
Dalstrom Metallic Door Co., Jamestown, N. Y.
- Doors, Sash and Blinds.**
Columbus Iron Works Co., Columbus, Ga.
Massee & Felton Lumber Co., Macon, Ga.
- Draftsmen's Supplies.**
Keuffel & Esser, Hoboken, N. J.
- Dredge Chains.**
Weimer Chain & Iron Co., Lebanon, Pa.
- Dredges. [See Excavating Machinery.]**
- Drill Presses. (Sensitive.)**
Myers, Chas. S., Columbia, Pa.
- Drills. (Pneumatic.) [See also Drills, Rock and Mining.]**
- Drills. (Prospecting.)**
Ingersoll-Rand Co., New York, N. Y.
Keystone Steam Well Mach. Co., Beaver Falls, Pa.
McKernan-Terry Drill Co., New York, N. Y.
- Drills. (Rock and Mining.)**
Chicago Pneumatic Tool Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Jeffrey Mfg. Co., Columbus, O.
McKernan-Terry Drill Co., New York, N. Y.
- Drills. (Twist.)**
Manning, Maxwell & Moore, Inc., New York, N. Y.
Morris Twist Drill & Mch. Co., New Bedford, Mass.
- Drive Well Points and Well Supplies.**
National Tube Co., Pittsburg, Pa.
- Drop Forgings.**
American Spiral Pipe Works, Chicago, Ill.
Great Southern Automobile Co., Birmingham, Ala.
Richmond Forgings Corporation, Richmond, Va.
- Drop Forging Machinery.**
Bliss Co., E. W., Brooklyn, N. Y.
- Drying Machinery.**
American Blower Co., Detroit, Mich.
American Process Co., New York, N. Y.
Bailey-Libby Co., The, Charleston, S. C.
Buffalo Forge Co., Buffalo, N. Y.
Engle-Coles Engineering Co., New York, N. Y.
Sturtevant Co., B. F., Hyde Park, Mass.
- Drykilns.**
Buffalo Forge Co., Buffalo, N. Y.
Hollister-Whitney Co., Quincy, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.
Union Iron Works Co., Selma, Ala.
- Dumbwaiters.**
American Elec. Mach. & Elev. Co., St. Louis, Mo.
Sidney Elevator & Mfg. Co., Sidney, O.
Spindel, J. G., Reading, Pa.
- Dump Wagons and Wagon Boxes.**
Case Threshing Mch. Co., J. I., Racine, Wis.
Eagle Wagon Works, Auburn, N. Y.
Troy Wagon Works Co., Troy, O.
- Dust-Collecting Systems.**
Buffalo Forge Co., Buffalo, N. Y.
Savannah Blow Pipe Co., Savannah, Ga.
Sklinner Bros., St. Louis, Mo.
Smith Roofing Co., Wilmington, N. C.
Standard Blower & Metal Mfg. Co., Atlanta, Ga.
- Dynamite.**
du Pont de Nemours Powder Co., E. I., Wilmington, Del.
- Dynamometers and Motors. (Steam Turbine.)**
De Laval Steam Turbine Co., Trenton, N. J.
Emerson Steam Pump Co., Alexandria, Va.
Fort Wayne Electric Works, Ft. Wayne, Ind.
General Electric Co., Schenectady, N. Y.
Southwark Fdry. & Mch. Co., Philadelphia, Pa.
Terry Steam Turbine Co., New York, N. Y.
Wagner Electric Mfg. Co., St. Louis, Mo.
Western Electric Co., New York, N. Y.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.
- Eaves. (Trough.)**
Edwards Mfg. Co., Cincinnati, O.
Hussey & Co., C. G., Pittsburg, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.
- Ejectors. (Automatic Sewage.)**
Blaisdell Machinery Co., Bradford, Pa.
- Electric Machinery. (Dynamometers, Generators, Motors, etc.)**
Allis-Chalmers Co., Milwaukee, Wis.
American Engine Co., Bound Brook, N. J.
American Machine Co., Louisville, Ky.
Crocker-Wheeler Co., Amper, N. J.
Doubleday-Hill Electric Co., Pittsburg, Pa.
Engberg's Elect. & Mech. Works, St. Joseph, Mo.
Fairbanks, Morse & Co., Chicago, Ill.
Fort Wayne Electric Works, Ft. Wayne, Ind.
General Electric Co., Schenectady, N. Y.
Gregory Electric Co., Chicago, Ill.
Kentucky Electrical Co., Owensboro, Ky.
Lee Electric Co., Baltimore, Md.
Piedmont Electric Co., Asheville, N. C.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Robbins & Myers Co., Springfield, O.
Southwark Fdry. & Mch. Co., Philadelphia, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
Triumph Electric Co., Cincinnati, O.
Wagner Electric Mfg. Co., St. Louis, Mo.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.
- Electrical Contractors, Instruments and Supplies.**
American Mach. & Mfg. Co., Charlotte, N. C.
Carolina Electrical Co., Raleigh, N. C.
Crocker-Wheeler Co., Amper, N. J.
Doubleday-Hill Electric Co., Pittsburg, Pa.
Engberg's Elect. & Mech. Works, St. Joseph, Mo.
Fort Wayne Electric Works, Ft. Wayne, Ind.
General Electric Co., Schenectady, N. Y.
Gregory Electric Co., Chicago, Ill.
- Elevators. Conveying and Power Transmission Machinery. [See also Conveying Mch. and Power Transmission Mch.]**
Jeffrey Mfg. Co., Columbus, O.
- Elevators.**
American Elec. Mach. & Elev. Co., St. Louis, Mo.
American Machine Co., Louisville, Ky.
Curran Elevator Co., James H., Cincinnati, O.
Dodge Manufacturing Co., Mishawaka, Ind.
Hollister-Whitney Co., Quincy, Ill.
Kansas City Elevator Mfg. Co., Kansas City, Mo.
Moffatt Machinery Mfg. Co., Charlotte, N. C.
Ohio Elevator & Machine Co., Columbus, O.
Otis Elevator Co., New York, N. Y.
Sidney Elevator & Mfg. Co., Sidney, O.
Spindel, J. G., Reading, Pa.
Westbrook Elevator Co., Danville, Va.
- Elevators. (Safety Appliances.)**
Roth Elevator Safety Co., Inc., Baltimore, Md.
- Elevator Buckets.**
Caldwell & Son Co., H. W., Chicago, Ill.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Philadelphia, Pa.
- Elevator Enclosures and Cabs.**
Rolls Iron & Wire Works, J. E., Detroit, Mich.
Dow Wire Works, Louisville, Ky.
Debur & Co., Baltimore, Md.
Dufur, Baggett & Co., Baltimore, Md.
Jones & Co., L. E., Baltimore, Md.
Myers Mfg. Co., The Fred J., Hamilton, O.
Ohio Elevator & Machine Co., The, Columbus, O.
Otis Elevator Co., New York, N. Y.
Southern Wire & Iron Mfg. Co., Dallas, Tex.
- Elevator Rope. [See Wire Rope.]**
- Elevator Safety Gates.**
Richmond Safety Gate Co., Richmond, Ind.
- Emery Wheels. [See Grinding Wheels.]**
- Engineers—**
COMBUSTION.
Improved Equipment Co., New York, N. Y.
CONSULTING.
Angle, Geo. W., New York, N. Y.
Brane, Walter H., Oxford, Miss.
Judson Engineering Co., H. S., Savannah, Ga.
Lewis, Fred H., Birmingham, Ala.
Lide, Martin J., Birmingham, Ala.
Macfarren, S. J., Washington, D. C.
Martin, T. H., Atlanta, Ga.
Serven, Arthur, Richmond, Va.
Young, W. W., New York, N. Y.
- DESIGNING—CONSTRUCTING.
Drum & Co., A. L., Chicago, Ill.
Foster-Creighton-Gould Co., Nashville, Tenn.
Harlow Co., James H., Baltimore, Md.
Judson Engineering Co., H. S., Savannah, Ga.
Knowles, Morris, Pittsburg, Pa.
Summers & Co., L. L., Chicago, Ill.
Weir, Walden & Dukaert, Baltimore, Md.
White & Co., J. G., New York, N. Y.
- DESIGNING, CONSTRUCTING, POWER PLANTS, ETC.
Dodge, Day & Zimmerman, Philadelphia, Pa.
Drum & Co., A. L., Chicago, Ill.
Emory & Eidenberg, Philadelphia, Pa.
Lea, Henry I., Chicago, Ill.
Lockwood, Greene & Co., Boston, Mass.
Manning-Hughes Co., Charlotte, N. C.
Patterson & Davidson, Chicago, Ill.
Silline, J. E., Greenville, S. C.
Sidle, Edward, Charlotte, N. C.
Spiker, Wm. C., Atlanta, Ga.
Stevens, John A., Lowell, Mass.
Virginia Bridge & Iron Co., Roanoke, Va.
Whitfield, Geo. H., Oxford, Miss.
- DRAINAGE.
Morgan Engineering Co., Memphis, Tenn.
- EFFICIENCY.
Macfarren, S. J., Washington, D. C.
Suffern & Son, Birmingham, Ala.
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Lumber Buggies.

Boyle Steam Feed Works, Meridian, Miss.

Lumber Stackers.

Boyle Steam Feed Works, Meridian, Miss.

Machinery. (Special.)

Black & Decker Mfg. Co., Baltimore, Md.
 Blas Co., E. W., Brooklyn, N. Y.
 Great Southern Automobile Co., Birmingham, Ala.
 Kline, Lewis T., Alpena, Mich.
 Leffer & Co., Charles, Brooklyn, N. Y.
 Myers, Chas. S., Columbia, Pa.
 Raymond Bros. Impact Pulv. Co., Chicago, Ill.
 Rogersford Fdry. & Mch. Wks., Rogersford, Pa.
 Stratton & Bragg Co., Petersburg, Va.
 Universal Telegraphic Co., Baltimore, Md.

Machinery and Supplies. (New and Second-Hand Bargains.)

Allentown Equip. Co., Allentown, Pa.
 Balto. Iron, Steel & Metal Co., Baltimore, Md.
 Balto. Metal Mchry. & Supply Co., Baltimore, Md.
 Boston Iron & Metal Co., Baltimore, Md.
 Briggs Machinery Co., Pittsburg, Pa.
 Campbell, Thos. J., Philadelphia, Pa.
 Chicago House Wrecking Co., Chicago, Ill.
 Cleveland Belting & Machinery Co., Cleveland, O.
 Dorse Railway Equipment Co., Chicago, Ill.
 Frank & Son, Ernest T., Baltimore, Md.
 Hiltner's Sons Co., Henry A., Philadelphia, Pa.
 Hocking Mchry. Co., New York, N. Y.
 Houston, R. C., Memphis, Tenn.
 Huntington Mchry. & Sup. Co., Wilkes-Barre, Pa.
 Hyde Bros. & Co., New York, N. Y.
 Lehman, Charles T., Birmingham, Ala.
 Levene & Co., E., Philadelphia, Pa.
 Linton, W. J., New York, N. Y.
 Lodge & Shipley Machine Tool Co., Cincinnati, O.
 Marine Metal & Supply Co., New York, N. Y.
 Morton, Richard, Baltimore, Md.
 Nuttall, J., Philadelphia, Pa.
 Papworth, H. M., New York, N. Y.
 Pannmiller Engineering Co., Chicago, Ill.
 Pickett, H. W., Philadelphia, Pa.
 Pittsburg Mchry. & Equip. Co., Pittsburg, Pa.
 Prentiss Tool & Supply Co., New York, N. Y.
 Randle Machinery Co., Cincinnati, O.
 Read Co., Howard W., Philadelphia, Pa.
 Samuel, Frank, Philadelphia, Pa.
 Seifer's Sons, Inc., L. F., Philadelphia, Pa.
 Southern Supply Co., Norfolk, Va.
 Stewart Co., Paul, Cincinnati, O.
 Tampa Machinery Exchange, Tampa, Fla.
 Texas Supply Co., Beaumont, Tex.
 Thompson, Jr., Co., Jos. H., New York, N. Y.
 Toomey, Frank, Philadelphia, Pa.
 Wicker Bros., New York, N. Y.
 Yearley, Thomas, Philadelphia, Pa.

Machine Tools.

Graves, Klusman & Co., Cincinnati, O.
 Manning, Maxwell & Moore, Inc., New York, N. Y.
 Miami Valley Machine Tool Co., Dayton, O.

Machinists. (Engineers.)

American Mch. & Mfg. Co., Charlotte, N. C.
 Roanoke Iron Works, Inc., Roanoke, Va.
 Stratton & Bragg Co., Petersburg, Va.

Magnesia Materials.

Johns-Manville Co., H. W., New York, N. Y.

Magnesite. (Dead Burned.)

Harblson-Walker Refractories Co., Pittsburg, Pa.

Magnets. (Electric Lift.)

Browning Engineering Co., Cleveland, O.

Magnet Electro. (For Cottonseed, Linters and Hullers.)

Dixie Electro Magnet Co., Memphis, Tenn.

Magnetic Separators.

Paxon Co., J. W., Philadelphia, Pa.

Mail Chutes.

Cutler Mail Chute Co., Rochester, N. Y.

Mantels. (Wooden.)

Northcross Mantel Co., W. J., Memphis, Tenn.

Marble Work. (Interior.)

Dagostin & Angelini Bros., Montgomery, Ala.
 Southern Mosaic Tile Co., Birmingham, Ala.

Mechanical Draft.

American Blower Co., Detroit, Mich.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Garden City Fan Co., Chicago, Ill.
 Sturtevant Co., B. F., Hyde Park, Mass.

Metal Ceilings. [See Ceilings, Metal.]**Metaline.**

North Amer. Metaline Co., Long Island City, N. Y.

Metal Culverts. [See Culverts.] (Corrugated Metal.)**Metal Polish.**

Hoffman, Geo. W., Indianapolis, Ind.

Metal Shingles.

Cincinnati Sheet Metal & Rfr. Co., Cincinnati, O.
 Cortright Metal Roofing Co., Philadelphia, Pa.
 Edwards Manufacturing Co., Cincinnati, O.
 Hyndman Roofing Co., Cincinnati, O.

Metal Window Frames and Sashes.

Edwards Mfg. Co., The, Cincinnati, O.
 Kelgley Metal Cell. & Mfg. Co., S., Pittsburg, Pa.
 Voigtman & Co., Chicago, Ill.

Metal Work. (Stamped and Embossed Hotel Checks, Key Tags, etc.)

American Railway Supply Co., New York, N. Y.

Metal-Working Machinery.

Bertsch & Co., Cambridge City, Ind.
 Bliss Co., E. W., Brooklyn, N. Y.
 Gibbs Machinery Co., Columbia, S. C.
 Leffer & Co., Chas., Brooklyn, N. Y.
 Price Machinery Co., S. M., Norfolk, Va.
 Rogersford Fdry. & Mch. Co., Rogersford, Pa.

Micrometers, Calipers, Etc.

Starrett Co., L. S., Athol, Mass.

Milk Filters. (Liquor, Milk, etc.)

International Filter Co., Chicago, Ill.

Mill Engineers and Architects.

Lockwood, Greene & Co., Boston, Mass.
 Sistrine, J. E., Greenville, S. C.
 Solle, Edward, Charlotte, N. C.

Mill Supplies.

Appomattox Iron Works, Petersburg, Va.
 Bailey-Lebby Co., Charleston, S. C.
 Cameron & Barkley Co., Charleston, S. C.
 Gainesville Iron Works, Gainesville, Ga.
 Greenwald Co., I. & E., Cincinnati, O.
 Lombard Iron Works, Augusta, Ga.
 Manning, Maxwell & Moore, Inc., New York, N. Y.
 Mecklenburg Iron Works, Charlotte, N. C.
 Nordyke & Marnon Co., Indianapolis, Ind.
 Salem Foundry & Machine Works, Salem, Va.
 Smith-Courtney Co., Richmond, Va.
 Starr Co., B. F., Baltimore, Md.
 Stratton & Bragg Co., Petersburg, Va.
 Wolf Co., Chambersburg, Pa.

Mining Machinery. (Gold, Copper, Plate, etc.)

Bartlett & Snow Co., C. O., Cleveland, O.
 Jeffrey Mfg. Co., Columbus, O.
 McLanahan-Stone Mach. Co., Hollidaysburg, Pa.
 Mecklenburg Iron Works, Charlotte, N. C.
 Nashville Armature Works, Nashville, Tenn.
 Power & Mining Machinery Co., Cudahy, Wis.
 Raymond Bros. Impact Pulv. Co., Chicago, Ill.

Mixing Machinery.

Dunning, W. D., Syracuse, N. Y.
 Lynn-Superior Co., The, Cincinnati, O.

Mold. (Cement.)

Simpson Cement Mold Co., Columbus, O.

Mortar Colors.

Chattanooga Paint Co., Chattanooga, Tenn.

Mouldings, Casings, etc.

Massee & Felton Lumber Co., Macon, Ga.

Nails and Spikes.

American Steel & Wire Co., Chicago, Ill.
 Hoffman & Co., R. C., Baltimore, Md.
 Lebanon Valley Iron & Steel Co., Lebanon, Pa.
 Republic Iron & Steel Co., Youngstown, O.
 West Virginia Rail Co., The, Huntington, W. Va.
 Youngstown Sheet & Tube Co., Youngstown, O.

Nitre Pots, Eggs.

Pratt Engineering & Mach. Co., Atlanta, Ga.

Nuts. [See Bolts, Nuts, Rivets, etc.]**Office Furniture.**

Quincy Show Case Works, Quincy, Ill.
 Ruse & Thompson, Baltimore, Md.

Oils. (Lubricating, etc.)

Borne-Srymaer Co., New York, N. Y.
 Galena Signal Oil Co., Franklin, Pa.
 Gulf Refining Co., Pittsburg, Pa.
 Indian Refining Co., Cincinnati, O.
 Robinson & Son Co., Wm. C., Baltimore, Md.
 Texas Oil, The, New York, N. Y.

Oil-Burning Appliances.

Ingram Fuel Oil Burner Co., Newport News, Va.
 Petroleum Iron Works Co., Sharon, Pa.

Oil Cans.

Wall Mfg. Supply Co., P., Allegheny, Pa.

Oil Separators.

Stewart Heater Co., Buffalo, N. Y.

Oil Stones.

Carborundum Co., Niagara Falls, N. Y.
 Norton Co., Worcester, Mass.

Oil-Storage Systems.

Hydraulic Oil Storage Co. of Maryland, Baltimore, Md.

Oil-Well Machinery.

Keystone Steam Well Mach. Co., Beaver Falls, Pa.
 Williams Bros., Ithaca, N. Y.

Ornamental Iron Work.

Belmont Iron Works, Inc., Philadelphia, Pa.
 Bolles Iron & Wire Works, J. E., Detroit, Mich.
 Chattanooga Iron & Wire Wks., Chat'n'ga, Tenn.
 Chesapeake Iron Works, Baltimore, Md.
 Dow Wire Works Co., Louisville, Ky.
 Ohio Elevator & Machine Co., The, Columbus, O.
 Roanoke Iron Works, Inc., Roanoke, Va.
 Schreiber & Sons Co., The, L., Cincinnati, O.
 Sneed Architectural Iron Works, Louisville, Ky.
 Southern Wire & Iron Mfg. Co., Dallas, Tex.

Packing. (Asbestos, Metallic, Rubber, Leather, etc.)

Jenkins Bros., New York, N. Y.
 Johns-Manville Co., H. W., New York, N. Y.
 N. J. Car Spring & Rubber Co., Jersey City, N. J.
 Power Specialty Co., New York, N. Y.

Paint. (Bridge.)

Dixon Crucible Co., Jos., Jersey City, N. J.
 Maryland Steel Co., Sparrows Point, Md.
 National Roofing Co., Tonawanda, N. Y.

Paints. (Cold Water.)

Wilhelm Co., A., New York, N. Y.

Paint. (Roofing, Building, etc.)

Armistage Mfg. Co., The, Richmond, Va.
 Bird & Son, F. W., East Walpole, Mass.
 Cameron & Barkley Co., Charleston, S. C.
 Chattanooga Paint Co., Chattanooga, Tenn.
 Dixon Crucible Co., Jos., Jersey City, N. J.
 Glidden Varnish Co., Cleveland, O.
 Maryland Steel Co., Sparrows Point, Md.
 National Roofing Co., Tonawanda, N. Y.
 Standard Paint Co., New York, N. Y.
 Wilhelm Co., A., New York, N. Y.

Paint. (Metal Preservative.)

Maryland Steel Co., Sparrows Point, Md.
 National Roofing Co., Tonawanda, N. Y.
 Wilhelm Co., A., New York, N. Y.

Painting. (Contractors for Bridges, Buildings, etc.)

Dinisco & Bro., A., Pittsburg, Pa.

Paint-making Machinery.

Campbell, F. F., Philadelphia, Pa.
 Lynn Superior Co., The, Cincinnati, O.

Paper. (Roofing, Building, Sheathing, etc.)

Armistage Mfg. Co., Richmond, Va.
 Barrett Mfg. Co., Philadelphia, Pa.
 Berlin Mill Co., Portland, Maine.
 Bird & Son, F. W., East Walpole, Mass.
 Cameron & Barkley Co., Charleston, S. C.
 Southeastern Lume & Cement Co., Charleston, S. C.

Paraffine Wax.

Standard Oil Co., Inc., Cincinnati, O.

Paper. (Wrapping.)

Berlin Mill Co., Portland, Maine.

Patent Attorneys.

Brown, Eugene C., Washington, D. C.
 Chundee & Co., H. Ellis, Washington, D. C.
 Chundee & Chundee, Washington, D. C.
 Evans & Co., Victor J., Washington, D. C.
 Hamlin, Geo. R., Washington, D. C.
 Lacey, R. S. & A. B., Washington, D. C.
 Owen, Richard B., Washington, D. C.

Patterns.

Roanoke Iron Works, Inc., Roanoke, Va.

Pavement Filler.

Barrett Mfg. Co., Philadelphia, Pa.

Paving. (Contractors for Creamed Wood Block.)

Creamed Wood Block Paving Co., Gulfport, Miss.

Paving. (Road and Street, etc.)

Barber Asphalt Paving Co., Philadelphia, Pa.
 Southern Clay Mfg. Co., Chattanooga, Tenn.

Paving Blocks. (Granite.)

Harris Granite Quarries Co., Salisbury, N. C.

Paving Blocks. (Wood Cress-Resinate.)

Gulport Cressoting Co., Gulfport, Miss.
 Southern Wood Preserving Co., Atlanta, Ga.
 U. S. Wood Preserving Co., New York, N. Y.

Paving Brick.

Carlyle Paving Brick Co., Portsmouth, O.
 Copeland-Ingalls Sluile Brick Co., Birm'gh'm, Ala.
 Southern Clay Mfg. Co., Chattanooga, Tenn.

Perforated Metal.

Caldwell & Son, H. W., Chicago, Ill.
 Clinton Wire Cloth Co., Clinton, Mass.
 Erdie Perforating Co., Rochester, N. Y.
 Hendrick Mfg. Co., The, Carlisle, Pa.
 Mundt & Sons, Charles, Jersey City, N. J.

Perspectives. (Water Color, for Architects.)

Alger & Smith, Atlanta, Ga.

Petroleum Refiners.

Gulf Refining Co., Pittsburg, Pa.
 Indian Refining Co., Cincinnati, O.
 Standard Oil Co., Cincinnati, O.

Phosphate Machinery.

Aising Engineering Co., J. R., New York, N. Y.
 American Process Co., New York, N. Y.
 Bailey-Lebby Co., The, Charleston, S. C.
 Cameron & Barkley Co., Charleston, S. C.
 Link-Belt Co., Nicetown (Philadelphia), Pa.
 McLanahan-Stone Mach. Co., Hollidaysburg, Pa.
 Pratt Engineering & Mach. Co., Atlanta, Ga.
 Raymond Bros. Impact Pulv. Co., Chicago, Ill.
 Valk & Murdoch Iron Works, Charleston, S. C.
 Walker & Elliott, Wilmington, Del.

Phosphor-Bronze. (Wire Rods, Sheets.)

Phosphor-Bronze Smelting Co., Philadelphia, Pa.

Photo-Engravers.

Baltimore Maryland Engr. Co., Baltimore, Md.

Pig Iron.

Alabama Coal & Iron Co., Birmingham, Ala.
 Hammond-Bryd Co., The, Birmingham, Ala.
 Hickman, Williams & Co., Chicago, Ill.
 La Belle Iron Works, Steubenville, O.
 Republic Iron & Steel Co., Youngstown, O.
 Rogers, Brown & Co., Cincinnati, O.
 Tennessee Coal, Iron & R. R. Co., B'mgh'm, Ala.

Pile Drivers.

Browning Engineering Co., Cleveland, O.
 Bucyrus Co., The, Milwaukee, Wis.
 Vulcan Iron Works, Chicago, Ill.

Piling. (Concrete.)

Raymond Concrete Pile Co., New York, N. Y.

Piling. (Cresosoted.)

Gulport Cressoting Co., Gulfport, Miss.
 Intern'l Cressoting & Const. Co., Galveston, Tex.
 Southern Cressoting Co., Ltd., Silehill, La.

Pillow Blocks.

Caldwell Co., Inc., W. E., Louisville, Ky.
 Dodge Manufacturing Co., Mishawaka, Ind.
 Golden's Foundry & Machine Co., Columbus, Ga.

Pine Tar.

Atlantic Turpentine Co., Savannah, Ga.

Pipe. (Cast Iron.)

American Cast Iron Pipe Co., Birmingham, Ala.
 American Pipe & Construction Co., Phila., Pa.
 General Fire Extinguisher Co., Providence, R. I.
 Giamorgan Pipe & Foundry Co., Lynchburg, Va.
 McVane Pipe Works, Lynchburg, Va.
 U. S. Cast Iron Pipe & Fdry. Co., New York, N. Y.
 Wood & Co., R. D., Philadelphia, Pa.

Pipe. (Coil.)

Columbus Iron Works Co., Columbus, Ga.
 Frick Co., The, Waynesboro, Pa.
 National Pipe Bending Co., New Haven, Conn.
 Whitlock Coil Pipe Co., Hartford, Conn.
 Wolf Co., Fred W., Chicago, Ill.
 York Mfg. Co., York, Pa.

Pipe. (Corrugated Culvert.)

American Rolling Mill Co., Middletown, O.
 Canton Culvert Co., The, Canton, O.
 Dixie Culvert & Metal Co., Atlanta, Ga.
 Kentucky Culvert Mfg. Co., Buena Vista, Ky.
 North Carolina Metal Culv. Co., Greensboro, N. C.
 Virginia Metal Culvert Co., Roanoke, Va.
 Virginia Railway Supply Co., Norfolk, Va.

Pipe. (Riveted.)

Abendroth & Root Mfg. Co., Newburgh, N. Y.
 Keeler Co., E., Westminister, Pa.
 Petroleum Iron Works Co., Sharon, Pa.

Pipe. (Spiral Riveted.)

Abendroth & Root Mfg. Co., Newburgh, N. Y.
 American Spiral Pipe Works

Printers. (Book, Catalog, Job, etc.)

Fleet-McGinley Co., Baltimore, Md.

Protector Steel. (Concrete Curb, Steps, etc.)

Steel Protected Concrete Co., Philadelphia, Pa.

Pulleys. (Friction Clutch.)Caldwell Co., Inc., W. E., Louisville, Ky.
Caldwell & Son Co., H. W., Chicago, Ill.
Dodge Manufacturing Co., Mishawaka, Ind.
Poole Engineering & Machine Co., Baltimore, Md.
Positive Clutch & Pulley Works, Buffalo, N. Y.
Sincclair-Scott Co., Baltimore, Md.
Woods' Sons Co., T. B., Chambersburg, Pa.**STEEL SPLIT.**

American Pulley Co., Philadelphia, Pa.

Dodge Manufacturing Co., Mishawaka, Ind.

WOOD SPLIT.Caldwell Co., Inc., W. E., Louisville, Ky.
Caldwell & Son Co., H. W., Chicago, Ill.
Dodge Manufacturing Co., Mishawaka, Ind.
Lane Mfg. Co., Montpelier, Vt.
Positive Clutch & Pulley Works, Buffalo, N. Y.
Saginaw Mfg. Co., Saginaw, Mich.
Salem Foundry & Machine Works, Salem, Va.**Pulleys, Shafting and Hangers.**Caldwell Co., Inc., W. E., Louisville, Ky.
Caldwell & Son Co., H. W., Chicago, Ill.
Dodge Manufacturing Co., Mishawaka, Ind.
Golden's Foundry & Machine Co., Columbus, Ga.
Greenwald Co., I. E., Cincinnati, O.
Jeffrey Mfg. Co., Columbus, O.
Jones & Laughlin Steel Co., Pittsburgh, Pa.
Lane Mfg. Co., Montpelier, Vt.
Link-Belt Co., Nictown (Philadelphia), Pa.
Nurdyke & Marmon Co., Indianapolis, Ind.
Poole Engineering & Machine Co., Baltimore, Md.
Positive Clutch & Pulley Works, Buffalo, N. Y.
Standard Roller Bearing Co., Philadelphia, Pa.
Woods' Sons Co., T. B., Chambersburg, Pa.**Pumps.** (Centrifugal.)Alberger Pump Co., New York, N. Y.
Buffalo Steam Pump Co., Buffalo, N. Y.
De Laval Steam Turbine Co., Trenton, N. J.
Emerson Steam Pump Co., Alexandria, Va.
Erie Pump & Engine Works, Erie, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.
Morris Machine Works, Baldwinville, N. Y.
Wheeler Condenser & Eng. Co., New York, N. Y.
Wood & Co., R. D., Philadelphia, Pa.
Worthington, H. R., New York, N. Y.**Pumps.** (Hydraulic.)Buffalo Steam Pump Co., Buffalo, N. Y.
Cardwell Machine Co., Richmond, Va.
Dean Bros. Steam Pump Wks., Indianapolis, Ind.
Emerson Steam Pump Co., Alexandria, Va.
Erie Pump & Engine Works, Erie, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.
Worthington, H. R., New York, N. Y.**Pumps.** (Lift and Force.)Goulds Mfg. Co., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.**Pumps.** (Odorous and Excavating.)

Goulds Mfg. Co., Seneca Falls, N. Y.

Pumps. (Pneumatic.)

Ingersoll-Rand Co., New York, N. Y.

Pumps. (Power Boiler Feed.)Alberger Pump Co., New York, N. Y.
Cameron Steam Pump Wks., A. S., New York, N. Y.
Dean Bros. Steam Pump Wks., Indianapolis, Ind.
Goulds Mfg. Co., Seneca Falls, N. Y.
McGowan Co., John H., Cincinnati, O.
Moffatt Machinery Mfg. Co., Charlotte, N. C.
Murray Iron Works Co., Burlington, Ia.
Myers & Bros., F. E., Ashland, O.
Union Steam Pump Co., Battle Creek, Mich.
Worthington, H. R., New York, N. Y.**Pumps.** (Rotary.)Goulds Mfg. Co., Seneca Falls, N. Y.
McGowan Co., John H., Cincinnati, O.**Pumps.** (Steam.)Blakeslee Mfg. Co., Du Quoin, Ill.
Buffalo Steam Pump Co., Buffalo, N. Y.
Cameron Steam Pump Wks., A. S., New York, N. Y.
Cameron & Barkley Co., Charleston, S. C.
Cook Well Co., The, St. Louis, Mo.
Dean Bros. Steam Pump Wks., Indianapolis, Ind.
Dean Bros. Steam Pump Wks., Holyoke, Mass.
Fairbanks, Morse & Co., Chicago, Ill.
Gibbs Machinery Co., Columbia, S. C.
Goulds Mfg. Co., Seneca Falls, N. Y.
Hooven, Owen, Rentschler Co., Hamilton, O.
Keystone Pump & Well Eng. Co., Beaver Falls, Pa.
McGowan Co., John H., Cincinnati, O.
Murray Iron Works Co., Burlington, Ia.
Price Machinery Co., S. M., Norfolk, Va.
Sydnor Pump & Well Co., Richmond, Va.
Union Steam Pump Co., Battle Creek, Mich.
Wheeler Condenser & Eng. Co., New York, N. Y.
Worthington, H. R., New York, N. Y.**Pumps.** (Trench.)

Goulds Mfg. Co., Seneca Falls, N. Y.

Pumps. (Vacuum.)Alberger Pump Co., New York, N. Y.
Dean Bros. Steam Pump Wks., Indianapolis, Ind.
Goulds Mfg. Co., Seneca Falls, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Wheeler Condenser & Eng. Co., New York, N. Y.**Pumping Machinery.**Allis-Chalmers Co., Milwaukee, Wis.
Blakeslee Mfg. Co., Du Quoin, Ill.
Cameron Steam Pump Wks., A. S., New York, N. Y.
Cook Well Co., The, St. Louis, Mo.
Dean Bros. Steam Pump Wks., Indianapolis, Ind.
Dean Bros. Steam Pump Wks., Holyoke, Mass.
Deming Co., Salem, O.
Erie Pump & Engine Works, Erie, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Goulds Mfg. Co., Seneca Falls, N. Y.
Hooven, Owen, Rentschler Co., Hamilton, O.
Keystone Pump & Well Eng. Co., Beaver Falls, Pa.
Moffatt Machinery Mfg. Co., Charlotte, N. C.
Morris Machine Works, Baldwinville, N. Y.
Myers & Bros., F. E., Ashland, O.
Purser, J. R., Charlotte, N. C.
Sanitary Pump Co., Dayton, O.
Sydnor Pump & Well Co., Richmond, Va.
Union Steam Pump Co., Battle Creek, Mich.
Wood & Co., R. D., Philadelphia, Pa.
Worthington, H. R., New York, N. Y.**Punching and Shearing Machinery.**Bertsch & Co., Cambridge City, Ind.
Bliss Co., E. W., Brooklyn, N. Y.
Ryersford Foundry & Mach. Co., Ryersford, Pa.**Pyrites Burners.**

Pratt Engineering & Mach. Co., Atlanta, Ga.

Quarrying and Stonecutting Machinery.

Ingersoll-Rand Co., New York, N. Y.

Railroads. (Agricultural and Industrial Opportunities.) [See Industrial, Agricultural and Commercial Opportunities.]**Railroads.** (Passenger Department.)

Illinois Central Railroad, Chicago, Ill.

Railroad Equipment and Supplies. (New and Second-hand.)American Frog & Switch Co., Hamilton, O.
American Locomotive Co., New York, N. Y.
American Valve & Meter Co., Cincinnati, O.
Bailey-Lebby Co., The, Charleston, S. C.
Baldwin Equipment & Supply Co., Chicago, Ill.
Birmingham Rail & Loco. Co., Birmingham, Ala.
Boston Iron & Metal Co., Baltimore, Md.
Cincinnati Frog & Switch Co., Cincinnati, O.
Fairbanks, Morse & Co., Chicago, Ill.
Foster Co., L. B., Pittsburgh, Pa.
Georgia Car & Locomotive Co., Atlanta, Ga.
Hoffman & Co., R. C., Baltimore, Md.
Indiana Steel & Iron Co., Birmingham, Ala.
Kilby Frog & Switch Co., Birmingham, Ala.
Macleary, J. H., Suffolk, Va.
Males Co., Cincinnati, O.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Maryland Equipment & Supply Co., Baltimore, Md.
May & Turner Co., Atlanta, Ga.
National Iron & Steel Co., Houston, Tex.
Newhall Eng. Co., Geo. M., Philadelphia, Pa.
Pickett, H. W., Philadelphia, Pa.
Read Co., Howard W., Philadelphia, Pa.
Robinson & Orr, Pittsburgh, Pa.
Sherwood, E. C., New York, N. Y.
Smith-Courtesy Co., Richmond, Va.
Southern Iron & Equipment Co., Atlanta, Ga.
Southern Supply Co., Norfolk, Va.
Steel Rail Supply Co., The, New York, N. Y.
United States Rail Co., Cumberland, Md.
Valent Iron Works, Wilkes-Barre, Pa.
Weir Frog Co., Cincinnati, O.
West Virginia Rail Co., The, Huntington, W. Va.
Wilson & Co., E. H., Philadelphia, Pa.
Zelucke Supply Co., Walter A., St. Louis, Mo.**Railroad Frogs and Switches.**American Frog & Switch Co., Hamilton, O.
Cincinnati Frog & Switch Co., Cincinnati, O.
Hoffman & Co., R. C., Baltimore, Md.
Kilby Frog & Switch Co., Birmingham, Ala.
May & Turner Co., Atlanta, Ga.
Robinson & Orr, Pittsburgh, Pa.
Sweet's Steel Co., Williamsport, Pa.
Weir Frog Co., Cincinnati, O.**Rails.** (Steel.)Baldwin Equipment & Supply Co., Chicago, Ill.
Carnegie Steel Co., Pittsburgh, Pa.
Foster Co., L. B., Pittsburgh, Pa.
Franks, J. E., Atlanta, Ga.
Hoffman & Co., R. C., Baltimore, Md.
Hyde Bros. & Co., Pittsburgh, Pa.
Indiana Steel & Iron Co., Birmingham, Ala.
Levis & Co., Henry, Philadelphia, Pa.
Macleary, J. H., Suffolk, Va.
May & Turner Co., Atlanta, Ga.
National Iron & Steel Co., Houston, Tex.
Newhall Eng. Co., Geo. M., Philadelphia, Pa.
Republic Iron & Steel Co., Youngstown, O.
Robinson & Orr, Pittsburgh, Pa.
Sherwood, E. C., New York, N. Y.
Southern Iron & Equipment Co., Atlanta, Ga.
Steel Rail Supply Co., The, New York, N. Y.
Sweet's Steel Co., Williamsport, Pa.
Tennessee Coal, Iron & R. R. Co., B'gh'm, Ala.
United States Rail Co., Cumberland, Md.
West Virginia Rail Co., The, Huntington, W. Va.
Wilson & Co., E. H., Philadelphia, Pa.
Zelucke Supply Co., Walter A., St. Louis, Mo.**Rail Braces, Crossings, etc.** [See R. R. Frogs and Switches.]**Railways.** (Industrial.)Chase Fdry. & Mfg. Co., Columbus, O.
Hunt Co., C. W., West New Brighton, N. Y.
Link-Belt Co., Nictown (Philadelphia), Pa.**Rams.** (Hydraulic.) [See Hydraulic Rams.]**Reamers.**

Morse Twist Drill & Mch. Co., New Bedford, Mass.

Reinforcing Bars.Carnegie Steel Co., Pittsburgh, Pa.
Concrete Steel Co., New York, N. Y.
Concrete Steel Engineering Co., New York, N. Y.
Franklin Steel Co., Franklin, Pa.**Repairing.** (Armatures and Elec. App.)

Nashville Armature Works, Nashville, Tenn.

Repairing. (Power Plants.)

Strickland Mch. Co., Richmond, Va.

Riveters. (Pneumatic.)Chicago Pneumatic Tool Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.**Road Machinery.**Austin-Western Co., Ltd., The, Chicago, Ill.
Buffalo Steam Roller Co., Buffalo, N. Y.
Case Threshing Mach. Co., J. I., Racine, Wis.
Huber Mfg. Co., The, Marion, O.
Iroquois Iron Works, Buffalo, N. Y.
Kelly Springfield Road Roller Co., Springfield, O.
Kilbourne & Jacobus Mfg. Co., Columbus, O.
Syracuse Chilled Plow Co., Syracuse, N. Y.
Universal Road Mch. Co., Kingston, N. Y.**Roadmaking Materials.**Barber Asphalt Paving Co., Philadelphia, Pa.
Standard Oil Co., The, Road Oil Dept.
Texas Co., The, New York, N. Y.**Road Roller.** (Steam.)Austin-Western Co., Ltd., The, Chicago, Ill.
Buffalo Steam Roller Co., Buffalo, N. Y.
Case Threshing Mach. Co., J. I., Racine, Wis.
Huber Mfg. Co., The, Marion, O.
Iroquois Iron Works, Buffalo, N. Y.
Kelly Springfield Road Roller Co., Springfield, O.
Universal Road Mch. Co., Kingston, N. Y.**Road Oil.**Gulf Refining Co., Pittsburg, Pa.
Standard Oil Co., Inc., Road Oil Dept.
Texas Co., The, New York, N. Y.**Road Plows.**Case Threshing Mch. Co., J. I., Racine, Wis.
Syracuse Chilled Plow Co., St. Louis, Mo.**Road Preservative.**Gulf Refining Co., Pittsburg, Pa.
Standard Oil Co., Inc., Road Oil Dept.
Texas Co., The, New York, N. Y.**Rock Crushers.** [See Crushers, Rock.]**Roll Grinding and Corrugating.** (Flour Mills.)

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Bertsch & Co., Cambridge City, Ind.

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Merchant & Evans Co., Philadelphia, Pa.

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Dinlaco & Bro., A., Pittsburg, Pa.

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American Sheet & Tin Plate Co., Pittsburgh, Pa.
Armington Mfg. Co., Richmond, Va.
Barber Asphalt Paving Co., Philadelphia, Pa.
Barrett Mfg. Co., Philadelphia, Pa.
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Cameron & Barkley Co., Charleston, S. C.
Carolina Portland Cement Co., Charleston, S. C.
Cincinnati Sheet Metal & Rfg. Co., Cincinnati, O.
Johns-Manville Co., H. W., New York, N. Y.
National Roofing Co., Tonawanda, N. Y.
Standard Paint Co., New York, N. Y.
Warren-Ehret Co., Philadelphia, Pa.**Roofing.** (Cement.)

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Roofing. (Metal Shingles.) [See Shingles, Metal.]Cincinnati Sheet Metal & Rfg. Co., Cincinnati, O.
Cortright Metal Roofing Co., Philadelphia, Pa.
Edwards Mfg. Co., The, Cincinnati, O.
Milwaukee Corrugating Co., Milwaukee, Wis.**Roofing.** (Reinforced Concrete.)

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Roofing. (Slate.)East Bangor Consol. Slate Co., East Bangor, Pa.
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Columbian Rope Co., Auburn, N. Y.
Plymouth Cordage Co., North Plymouth, Mass.
Turner Co., J. Spencer, New York, N. Y.
Whitlock Cordage Co., New York, N. Y.**Rope.** (Transmission and Hoisting.)American Mfg. Co., New York, N. Y.
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Dodge Manufacturing Co., Mishawaka, Ind.
Hunt Co., C. W., West New Brighton, N. Y.
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Wood's Sons Co., T. B., Chambersburg, Pa.**Rope Drives.**Caldwell Co., Inc., W. E., Louisville, Ky.
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Roth Elevator Safety Co., Inc., Baltimore, Md.

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Kirkpatrick Sand & Cem. Co., Birmingham, Ala.
Southern Sand & Gravel Co., Richmond, Va.**Sand Lime Brick Machinery.**

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Chicago Pneumatic Tool Co., Chicago, Ill.

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Church & Dwight Co., New York, N. Y.

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Niagara Falls Metal Stamping Works, Niagara Falls, N. Y.

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Gibbs Machinery Co., Columbia, S. C.

Huthers Bros. Saw Mfg. Co., Rochester, N. Y.

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Sydnor Pump & Well Co., Richmond, Va.

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Smith Machine Co., H. B., Smithville, N. J.

Saws. (Hack.)

Starrett Co., L. S., Athol, Mass.

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Sawmills.

Appomattox Iron Works, Petersburg, Va.

Gainesville Iron Works, Gainesville, Ga.

Vance & Co., J. A., Salem, N. C.

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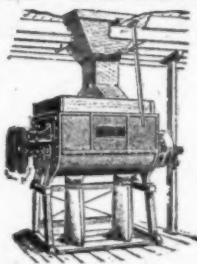


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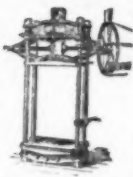
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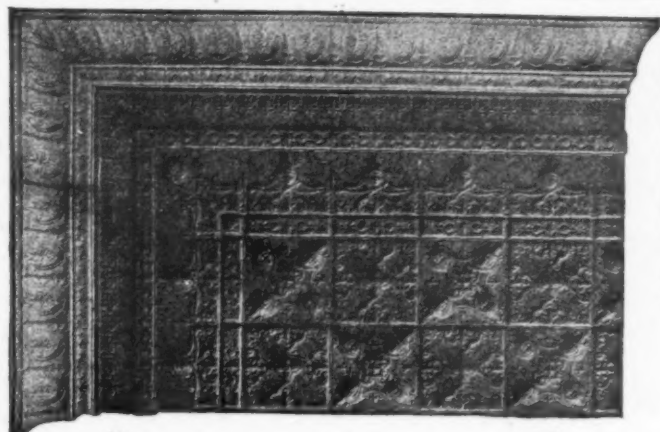


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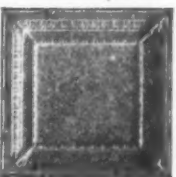
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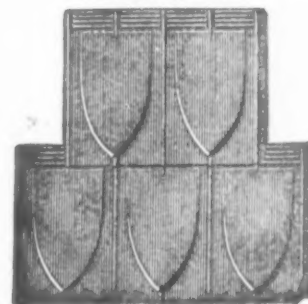
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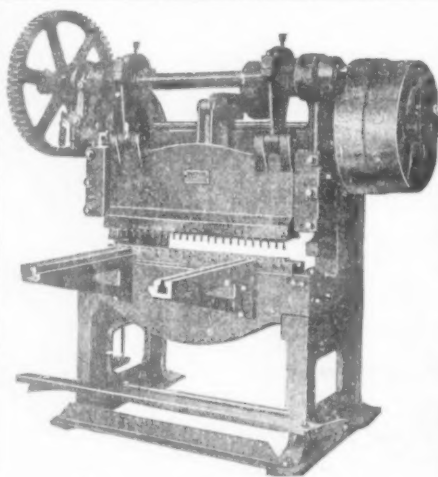
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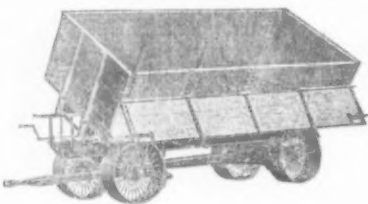


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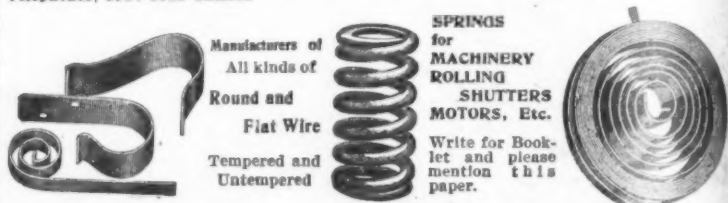
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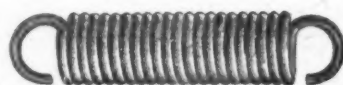
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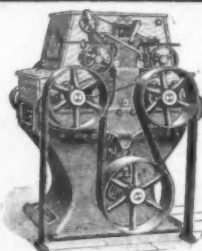
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